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TABLES OF
THE PROPERTIES OF STEAM
AND OTHER VAPORS
AND
TEMPERATURE-ENTROPY
TABLE

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P R E F A C E.

THE Tables of the Properties of Steam were calculated twenty years ago to accompany the author's Thermodynamics of the Steam Engine; since that time important experimental investigations have been made by Callendar, Barnes, Knoblauch and Thomas. The tables have been recomputed, introducing this information and with certain changes which will be found to facilitate their use. All the tables for saturated steam have columns of entropy due to vaporization; and the table in metric units has been made into a conversion table by aid of which properties can be found in either metric or English units or a combination of the two systems may be used. *Quinn, R. D.*

The development of the steam-turbine has given prominence to adiabatic computations for steam and has emphasized the facts that the usual methods are tedious and cannot be worked inversely. To meet this difficulty various diagrams have been devised, all of which have certain inconveniences; if they have a convenient scale, they are so large as to be awkward to carry or to use; all have important problems represented by curves which render interpolation troublesome.

To facilitate the solution of all adiabatic problems (and many others) a Temperature-Entropy Table has been constructed for saturated and superheated steam. For engineering purposes the answers for such problems may be read directly from the table; greater refinement can be had by interpolation when that is thought desirable. That part of the table which refers to saturated steam may be relied upon to give the nearest unit in the last place of significant figures; the degree of accuracy to be attributed to the several properties of saturated steam can be determined from the statements of experimental data and derivation of formulæ given in the Introduction. The properties of superheated steam are given with as much accuracy as conditions warrant. This part of the table offers solutions of problems that cannot be readily obtained otherwise.

Original data are given in the Introduction so far as possible, and computations and transformations of equations are set down at length

so that each one may decide for himself what degree of accuracy he shall attribute to the properties and methods presented.

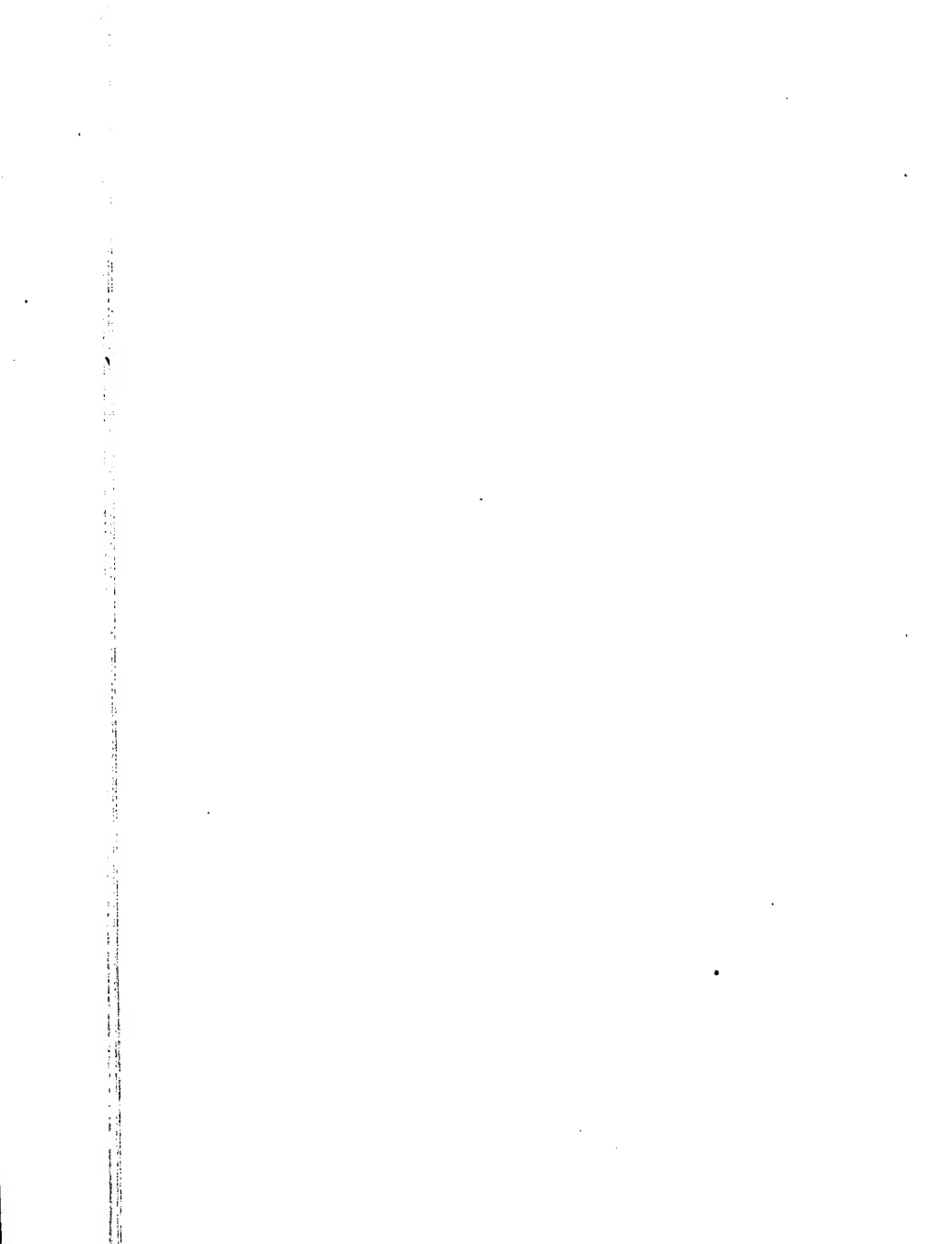
The actual work of recomputing the Tables of Properties of Steam and of constructing the Temperature-Entropy Table has been done by Mr. Harold A. Everett, S.B., who has also read the proofs. How much that means can be appreciated by those familiar with such undertakings.

C. H. P.

SEPTEMBER, 1907.

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PROPERTIES OF STEAM AND OTHER VAPORS.

INTRODUCTION.

FOR engineering purposes steam is generated in a boiler which is partially filled with water, and arranged to receive heat from the fire in the furnace.

The ebullition is usually energetic, and more or less water is mingled with the steam; but if there is a fair allowance of steam space over the water, and if proper arrangements are provided for withdrawing the steam, it will be found when tested to contain a small amount of water, usually between half a per cent and a per cent and a half. Steam which contains a considerable percentage of water is passed through a separator which removes almost all of it. Such steam is considered to be approximately dry.

If the steam is quite free from water it is said to be dry and saturated; steam from a boiler with a large steam space and which is making steam very slowly is nearly if not quite dry.

Steam which is withdrawn from the boiler may be heated to a higher temperature than that found in the boiler, and is then said to be superheated.

Saturated Steam.— Our knowledge of the properties of saturated steam and other vapors is due mainly to the experiments of Regnault,* who determined the relations of the temperature and pressure, the total heat of vaporization, and the heat of the liquid for many volatile liquids. Since his time, Rowland's determination of the mechanical equivalent of heat has given a more exact determination of the specific heat of water at low temperatures, and recently Dr. Barnes has given a very precise determination of that property for water. Again, certain work by Knoblauch, Linde and Klebe, has given us a good knowledge of the properties of superheated steam which can be extended to give the specific volumes of saturated steam over a considerable range of temperature; in the proper place a comparison will be made with the usual theoretical computations for volumes.

* *Mémoires de l' Institut de France*, etc., tome xxvi.

Pressure of Saturated Steam. — As a conclusion from all the experiments on the tension of saturated steam, Regnault * gives the following

TEMPERATURE C.	PRESSURE MM. OF MERCURY.
- 32	0.32
- 16	1.29
0	4.60
25	23.55
50	91.98
75	288.50
100	760.00
130	2030.0
160	4651.6
190	9426.
220	17390.
- 20	0.91
+ 40	54.91

From these data he calculated, by the aid of seven-place logarithms, the following formulæ, which give the pressure in millimetres for any temperature in degrees Centigrade:—

A. For steam from -32° to 0° C,

$$p = a + b\alpha^n.$$

$$a = -0.08038.$$

$$\log b = 9.6024724 - 10.$$

$$\log \alpha = 0.033398.$$

$$n = 32^{\circ} - t.$$

B. For steam from 0° to 100° C,

$$\log p = a - b\alpha^n + c\beta^n.$$

$$a = 4.7384380.$$

$$\log b = 0.6116485.$$

$$\log c = 8.1340339 - 10.$$

$$\log \alpha = 9.9967249 - 10.$$

$$\log \beta = 0.006865036.$$

$$n = t.$$

* *Mémoires de l'Institut de France*, etc., tome xxi.

iments
ata: —

$$\begin{aligned} C. \text{ For steam from } 100^{\circ} \text{ to } 220^{\circ} \text{ C,} \\ \log p = a - b\alpha^n + c\beta^n. \\ a = 5.4583895. \\ \log b = 0.4121470. \\ \log c = 7.7448901 - 10. \\ \log \alpha = 9.997412127 - 10. \\ \log \beta = 0.007590697. \\ n = t - 100. \end{aligned}$$

$$\begin{aligned} D. \text{ For steam from } -20^{\circ} \text{ to } 220^{\circ} \text{ C} \\ \log p = a - b\alpha^n - c\beta^n. \\ a = 6.2640348. \\ \log b = 0.1397743. \\ \log c = 0.6924351. \\ \log \alpha = 9.994049292 - 10. \\ \log \beta = 9.998343862 - 10. \\ n = t + 20. \end{aligned}$$

ithms,
ercury

By aid of the formulæ *A* and *B*, Regnault calculated tables of the pressures of saturated steam for temperatures from 100° C. The formula *D* was calculated from the data for the temperatures -20° , $+40^{\circ}$, 100° , 160° , and 220° intended to represent the whole range of experiments. But instead of formula *C*, he calculated the pressures set down for temperatures from 100° C. to 220° C. In the calculation of the constants and in their application to computations of pressures at other temperatures, there is an inevitable loss of accuracy so that the results do not agree satisfactorily with the original data.

Equations for the Pressure of Steam at Paris. — In view of the above statements, it appeared desirable to re-calculate the constants *B* and *C*, with a degree of accuracy that should extend as to the reliability of the results. Accordingly, the logarithms were taken from Vega's ten-place table, and then the recalculations were carried on with natural numbers, checking the results by independent methods, with the following results: —

$$\begin{aligned} B. \text{ For steam from } 0^{\circ} \text{ to } 100^{\circ} \text{ C,} \\ \log p = a - b\alpha^n + c\beta^n. \\ a = 4.7393622142. \\ \log b = 0.6117400190. \\ \log c = 8.1320378383 - 10. \\ \log \alpha = 9.996725532820 - 10. \\ \log \beta = 0.006864675924. \\ n = t. \end{aligned}$$

C. For steam from 100° to 220° C.,

$$\log p = a - b\alpha^n + c\beta^n.$$

$$a = 5.4574301234.$$

$$\log b = 0.4119787931.$$

$$\log c = 7.7417476470 - 10.$$

$$\log \alpha = 9.99741106346 - 10.$$

$$\log \beta = 0.007642489113.$$

$$n = t - 100.$$

To show the degree of accuracy attained, the following tables are given:—

EQUATION B.

t .	p .	LOG p FROM TABLE OF LOGARITHMS.	LOG p CALCULATED BY EQUATION.
0	4.60	0.6627578317	. . . . .
25	23.55	1.3719909115	1.37199097
50	91.98	1.9636934052	1.96369346
75	288.50	2.4601458175	2.46014587
100	760	2.8808135923	2.88081365

EQUATION C.

t .	p .	LOG p FROM TABLE OF LOGARITHMS.	LOG p CALCULATED BY EQUATION.
100	760.00	2.8808135923	. . . . .
130	2030.0	3.3074960379	3.307496036
160	4651.6	3.6676023618	3.667602359
190	9426	3.9743274354	3.974327428
220	17390	4.2402995820	4.240299575

The results from Equation C are quite satisfactory; for the errors come in the ninth place of decimals, and one place of decimals is unavoidably lost in the application of the formula. Equation B was calculated after Equation C and the numerical work was not carried to so large a number of decimal places. For the calculation of tables, the constants are carried to seven places of significant figures only; this gives six significant figures in the result, of which five are recorded in the tables.

Pressure of Steam at Latitude 45° . — French System. — It is customary to reduce all measurements to the latitude of 45° , and to sea-level. The standard thermometer should then have its boiling and freezing points

determined under, or reduced to such conditions. The value of g , the acceleration due to gravity, is, at Paris, latitude $48^{\circ} 50' 14''$ and 60 metres above sea-level, 9.809218 metres; and at 45° , and at sea-level, it is 9.806056 metres. Consequently, 760 mm. of mercury at 45° gives a pressure equal to that of 759.755 mm. at Paris; and this corresponds to a temperature of $99^{\circ}.991$ C.

In other words, the thermometer which is standard at 45° has each degree 0.99991 of the length of the degree of a thermometer standard at Paris.

To reduce Equation B to 45° latitude, we have

$$\log p = a + \log \frac{980.9218}{980.6056} - b\alpha^{0.99991t} + c\beta^{0.99991t};$$

and for Equation C ,

$$\begin{aligned} \log p &= a + \log \frac{980.9218}{980.6056} - b\alpha^{(0.99991t-100)} + c\beta^{(0.99991t-100)} \\ &= a + \log \frac{980.9218}{980.6056} - b\alpha^{-0.009} \alpha^{0.99991(t-100)} + c\beta^{-0.009} \beta^{0.99991(t-100)}. \end{aligned}$$

The resulting equations which were used in calculating Table III are

B. For steam from 0° to 100° C. at 45° latitude,

$$\log p = a_1 - b\alpha_1^n + c\beta_1^n.$$

$$a_1 = 4.739502.$$

$$\log b = 0.6117400.$$

$$\log c = 8.13204 - 10.$$

$$\log \alpha_1 = 9.996725828 - 10.$$

$$\log \beta_1 = 0.0068641.$$

$$n = t.$$

C. For steam from 100° to 220° C. at 45° latitude,

$$\log p = a_1 - b_1\alpha_1^n + c_1\beta_1^n.$$

$$a_1 = 5.457570.$$

$$\log b_1 = 0.4120021.$$

$$\log c_1 = 7.74168 - 10.$$

$$\log \alpha_1 = 9.997411296 - 10.$$

$$\log \beta_1 = 0.0076418.$$

$$n = t - 100.$$

Pressure of Steam at Latitude 45°. — English System. — To reduce the equations for the pressure of steam, so that they will give the pressures in pounds on the square inch for degrees Fahrenheit, there are required the comparison of measures of length, and of weight, the comparison of the scales of the thermometers, and the specific gravity of mercury.

Professor Rogers * gives for the length of the metre, 39.3702 inches.

Professor Miller † gives for the weight of one kilogram, 2.20462125 pounds.

Regnault gives, for the weight of one litre of mercury, 13.5959 kilograms. The degree Fahrenheit is $\frac{9}{5}$ of the length of the degree Centigrade.

$$\text{Let} \quad k = \frac{13.5959 \times 2.204621}{39.3702^2};$$

then the equations *B* and *C* have for the reduction to degrees Fahrenheit, and pounds on the square inch,

$$\begin{aligned} \log p &= a_1 + \log k - b\alpha_1^n + c\beta_1^n, \\ \log p &= a_1 + \log k - b_1\alpha_1^n + c_1\beta_1^n. \end{aligned}$$

The resulting equations, which were used in calculating Table I, are : —

B. For steam from 32° to 212° F., in pounds on the square inch,

$$\log p = a_2 - b\alpha_2^n + c\beta_2^n.$$

$$a_2 = 3.025908.$$

$$\log b = 0.6117400.$$

$$\log c = 8.13204 - 10.$$

$$\log \alpha_2 = 9.998181015 - 10.$$

$$\log \beta_2 = 0.0038134.$$

$$n = t - 32.$$

C. For steam from 212° to 428° F., in pounds on the square inch,

$$\log p = a_2 - b_1\alpha_2^n + c_1\beta_2^n.$$

$$a_2 = 3.743976.$$

$$\log b_1 = 0.4120021.$$

$$\log c_1 = 7.74168 - 10.$$

$$\log \alpha_2 = 9.998561831 - 10.$$

$$\log \beta_2 = 0.0042454.$$

$$n = t - 212.$$

* *Proceedings of the Am. Acad. of Arts and Sciences*, 1882-83, also *Additional Observations*, etc.

† *Phil. Transactions*, cxlvi., 1856.

All of the foregoing equations make the pressure a function of the temperature on the scale of the air-thermometer. It will be assumed that the difference between that scale and the absolute scale may be neglected.

Pressure of Other Vapors. — Regnault determined also the pressure of a large number of saturated vapors at various temperatures, and deduced equations for each. The equations and the constants as determined by him for the commoner vapors are given in the following table:

	$\log p$	a	b	c
Alcohol	$a - b\alpha^n + c\beta^n$	5.4562028	4.9809960	0.0485397
Ether	$a + b\alpha^n - c\beta^n$	5.0286298	0.0002284	3.1906390
Chloroform	$a - b\alpha^n - c\beta^n$	5.2253893	2.9531281	0.0668673
Carbon bisulphide	$a - b\alpha^n - c\beta^n$	5.4011662	3.4405663	0.2357386
Carbon tetrachloride . . .	$a - b\alpha^n - c\beta^n$	12.0962331	9.1375180	1.9674890

	$\log a$	$\log \beta$	n	Limits.
Alcohol	I.99708557	I.9409485	$t + 20$	$-20^\circ, +150^\circ \text{ C.}$
Ether	0.0145775	I.996877	$t + 20$	$-20^\circ, +120^\circ \text{ C.}$
Chloroform	I.9974144	I.9868176	$t - 20$	$+20^\circ, +164^\circ \text{ C.}$
Carbon bisulphide	I.9977628	I.9911997	$t + 20$	$-20^\circ, +140^\circ \text{ C.}$
Carbon tetrachloride	I.9997120	I.9949780	$t + 20$	$-20^\circ, +188^\circ \text{ C.}$

Zeuner * states that there is a slight error in Regnault's calculation of the constants for acetone, and gives instead

$$\log p = a - b\alpha^n + c\beta^n;$$

$$a = 5.3085419;$$

$$\log b\alpha^n = +0.5312766 - 0.0026148 t;$$

$$\log c\beta^n = -0.9645222 - 0.0215592 t.$$

Differential Coefficient $\frac{dp}{dt}$. — As will be seen later, the differential coefficient $\frac{dp}{dt}$ is used in calculating the volume and density of saturated vapors.

From the general equation of the form,

$$\log p = a + b\alpha^n + c\beta^n,$$

differentiation gives

$$\frac{1}{p} \frac{dp}{dt} = \frac{1}{M^2} b \log \alpha \cdot \alpha^n + \frac{1}{M^2} c \log \beta \cdot \beta^n,$$

in which M is the modulus of the common system of logarithms.

* Mechanische Warmetheorie.

PROPERTIES OF STEAM AND OTHER VAPORS.

The equation may be written,

$$\frac{1}{p} \frac{dp}{dt} = A\alpha^n + B\beta^n.$$

The calculation of the values of the constants gives the following results
latitude 45° :—

French units.

B. For 0° to 100° C., mm. of mercury,

$$\log A = 8.8512729 - 10.$$

$$\log B = 6.69305 - 10.$$

$$\log \alpha_1 = 9.996725828 - 10.$$

$$\log \beta_1 = 0.0068641.$$

C. For 100° to 220° C., mm. of mercury,

$$\log A = 8.5495158 - 10.$$

$$\log B = 6.34931 - 10.$$

$$\log \alpha_1 = 9.997411296 - 10.$$

$$\log \beta_1 = 0.0076418.$$

English units.

B. For 32° to 212° F., pounds on the square inch,

$$\log A = 8.5960005 - 10.$$

$$\log B = 6.43778 - 10.$$

$$\log \alpha_2 = 9.998181015 - 10.$$

$$\log \beta_2 = 0.0038134.$$

C. For 212° to 428° F., pounds on the square inch,

$$\log A = 8.2942434 - 10.$$

$$\log B = 6.09403 - 10.$$

$$\log \alpha_2 = 9.998561831 - 10.$$

$$\log \beta_2 = 0.0042454.$$

The following table gives values for several other vapors:

	SIGN.		Log ($A\alpha^n$)	Log ($B\beta^n$)
	$A\alpha^n$	$B\beta^n$		
alcohol	+	-	-1.1720041-0.0029143 t	-2.9992701-0.0590515 t
ether	+	+	-1.3396624-0.0031223 t	-4.4616396+0.0145775 t
chloroform	+	+	-1.3410130-0.0025856 t	-2.0667124-0.0131824 t
carbon bisulphide	+	+	-1.4339778-0.0022372 t	-2.0511078-0.0088003 t
carbon tetrachloride	+	+	-1.8611078-0.0002880 t	-1.3812195-0.0050220 t
acetone	+	+	-1.3268535-0.0026148 t	-1.0064582-0.0215592 t
			t, temperature C.	

Standard Temperature. — It is customary to refer all calculations for gases to the standard conditions of the pressure of the atmosphere (760 mm. mercury) and to the freezing-point of water. Formerly the freezing-point was taken as the standard temperature for water and steam as even now it is the initial point for tables of the properties of saturated vapors. But the investigation of the mechanical equivalent of heat by Rowland resulted in a determination of the specific heat of water with much greater delicacy than is possible by Regnault's method of mixtures, and showed that the freezing-point is not well adapted for the standard temperature for water. It has been the habit of many physicists for many years to take 15°C. as the standard temperature, and this corresponds substantially with 62°F. , at which the English units of measure are standard.

Mechanical Equivalent of Heat. — The most authoritative determination of the mechanical equivalent of heat appears to be that by Rowland,* from which the work required to raise the temperature of one pound of water from 62° to 63°F. is

778 foot-pounds.

This is equivalent to

427 metre kilograms

in the metric system. Since his experiments were made this important physical constant has been investigated by several experimenters, and so a recomputation of his results has been made after a recomparison of his thermometers. The conclusion appears to be that his results may be a little small, but the differences are not important, and it is not certain that the conclusion is valid. There seems, therefore, no sufficient reason for changing the accepted values given above.

Specific Heat of Water. — The most reliable determination of the specific heat of water is that by Dr. Barnes,† who used an electrical method devised by Professor Callendar and himself, and who extended the method to and below freezing-point by carefully cooling water without the formation of ice to -5°C. This method gives relative results with great refinement, and gives also a good confirmation of Rowland's determination of the mechanical equivalent of heat. Dr. Barnes reports values of the specific heat of water up to 95°C. In the following table his results are quoted from 0° to 55°C. ; from 55° to 95° his results have

* *Proc. Am. Acad.*, vol. xv. (N. S. vii), 1879.

† *Physical Review*, vol. xv, p. 71, 1902..

been slightly increased to join with results determined by recomputing Regnault's experiments on the heat of the liquid for water (which experiments range from 110° C. to 180° C.) by allowing for the true specific heat at low temperature from Dr. Barnes's experiments. The maximum effect of modifying Dr. Barnes's results is to increase the heat of the liquid at 95° by one-tenth of one per cent.

Temperature.		Specific Heat.	Temperature.		Specific Heat.	Temperature.		Specific Heat.
C.	F.		C.	F.		C.	F.	
0	32	1.0094	45	113	0.99760	80	194	1.00705
5	41	1.00530	50	122	0.99800	95	203	1.00855
10	50	1.00230	55	131	0.99850	100	212	1.01010
15	59	1.00030	60	140	0.99940	120	248	1.01320
20	68	0.99895	65	149	1.00040	140	284	1.02230
25	77	0.99806	70	158	1.00150	160	320	1.02850
30	86	0.99759	75	167	1.00275	180	356	1.03475
35	95	0.99735	80	176	1.00415	200	392	1.04100
40	104	0.99735	85	188	1.00557	220	428	1.04760

Heat of the Liquid. — The heat required to raise one unit of weight of any liquid from freezing-point to a given temperature is called the heat of the liquid at that temperature; and also at the corresponding pressure. Since the specific heat for water varies we may obtain the heat of the liquid by integration as indicated by the equation

$$q = \int c dt.$$

In order to use this equation it would be necessary to obtain an empirical equation connecting the specific heat with the temperature; such an equation has not been proposed and would probably be complex. Another method is to draw a curve with temperatures as abscissæ and specific heats as ordinates and integrate graphically. The fact that the specific heat is nearly equal to unity at all temperatures and that consequently the heat of the liquid for the Centigrade thermometer is not very different from the temperature suggests the following method :

Let

$$c = 1 + k$$

where k is the difference between the specific heat and unity at any temperature, k being positive or negative as the case may be.

Then

$$q = t + \int k dt,$$

which may be obtained by plotting values of k as ordinates and integrating graphically, which will have the advantage that the required curve may be drawn to a large scale and give correspondingly accurate results. The values for the heat of the liquid for water in the tables were obtained in this way.

The following table gives equations for the heats of the liquid for various substances as determined by Regnault:

HEAT OF THE LIQUID.

Alcohol	$q = 0.54754t + 0.0011218t^2 + 0.000002206t^3$
Ether	$q = 0.52901t + 0.0002959t^2$
Chloroform	$q = 0.23235t + 0.0000507t^2$
Carbon bisulphide	$q = 0.23523t + 0.0000815t^2$
Carbon tetrachloride	$q = 0.19798t + 0.0000906t^2$
Aceton	$q = 0.50643t + 0.0003965t^2$

Total Heat. — This term is defined as the heat required to raise a unit of weight of water from freezing-point to a given temperature, and to entirely evaporate it at that temperature. The experiments made by Regnault were in the reverse order; that is, steam was led from a boiler into the calorimeter and there condensed. Knowing the initial and final weights of the calorimeter, the temperature of the steam, and the initial and final temperatures of the water in the calorimeter, he was able, after applying the necessary corrections, to calculate the total heats for the several experiments.

As a conclusion of the work, he gives the following values for the total heats: —

10°	610	By equation, 609.6
63°	625	625.2
100°	637	
195°	666	

Assuming an equation of the form

$$H = A + Bt,$$

Regnault calculated the constants from the values given for 100° and 195°, and gives the equation

$$H = 606.5 + 0.305t.$$

For the Fahrenheit scale the equation becomes

$$H = 1091.7 + 0.305 (t - 32).$$

An investigation of the original experimental results, allowing for the true specific heat of the water in the calorimeter, showed that the probable errors of the method of determining the total heat were larger than the deviations of the true specific heats from unity, the value assumed by Regnault; and, further, it appeared that his equation represents our best knowledge of the total heat of steam. There appears to be no reason for changing this equation till new experimental values shall be supplied. The deviation of individual experimental results from corresponding computations by the equation is likely to be one in five hundred. There is further some uncertainty whether the method of drawing steam from the boiler did not involve some error due to entrained moisture. The best check upon Regnault's results is a comparison with Knoblauch's work on superheated steam.

The total heats for various fluids are given by the following equations:

Ether	$H = 94$	$+ 0.45t - 0.0005556t^2$
Chloroform	$H = 67$	$+ 0.1375t$
Carbon bisulphide	$H = 90$	$+ 0.14601t - 0.0004123t^2$
Carbon tetrachloride	$H = 52$	$+ 0.14625t - 0.000172t^2$
Aceton	$H = 140.5$	$+ 0.36644t - 0.000516t^2$

Specific Volume of Liquids. — The coefficient of expansion of most liquids is large as compared with that of solids, but it is small as compared with that of gases or vapors. Again, the specific volume of a vapor is large compared with that of the liquid from which it is formed. Consequently the error of neglecting the increase of volume of a liquid with the rise of temperature is small in equations relating to the thermodynamics of a saturated vapor, or of a mixture of a liquid and its vapor when a considerable part by weight of the mixture is vapor. It is, therefore, customary to consider the specific volume of a liquid to be constant.

Table XII, giving the specific volumes of various liquids, was taken from the *Phys.-Chem. Tabellen* of Landolt and Börnstein.

Volume of Water. — Table XIII gives the volumes of water compared with its volume at 4°. From 0° to 100° C., the values are those given by

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Rossetti. Above 100° , the values are those calculated by the equation given by Hirn.*

Volumes of Liquids. — The volumes of liquids at high temperature compared with the volume at freezing-point, are represented by the following equations given by Hirn: —

		Logs.
Water 100° C. to 200° C. (vol. at 4° C. = unity)	$v=1+0.00010867875t$	6.0361445-
	$+0.0000030073653t^2$	4.4781862-
	$+0.0000000028730422t^3$	1.4583419-
	$-0.000000000066457031t^4$	8.8225409-
Alcohol 30° C. to 160° C. (vol. at 0° C. = unity)	$v=1+0.00073892265t$	6.8685991-
	$+0.00001055235t^2$	3.0233492-
	$-0.000000092480842t^3$	2.9660517-
	$+0.00000000040413567t^4$	0.6065278-
Ether 30° C. to 130° C. (vol. at 0° C. = unity)	$v=1+0.0013489059t$	7.1299817-
	$+0.0000065537t^2$	4.8164866-
	$-0.000000034490756t^3$	2.5377028-
	$+0.00000000033772062t^4$	0.5285571-
Carbon bisulphide 30° to 160° C. (vol. at 0° C. = unity)	$v=1+0.0011680559t$	7.0674636-
	$+0.0000016489598t^2$	4.2172103-
	$-0.00000000081119062t^3$	0.9091229-
	$+0.00000000060946589t^4$	8.7849494-
Carbon tetrachloride 30° to 160° C. (vol. at 0° C. = unity)	$v=1+0.0010671883t$	7.0282409-
	$+0.0000035651378t^2$	4.5520763-
	$-0.000000014949281t^3$	2.1746202-
	$+0.000000000085182318t^4$	9.9303494-

Heat of Vaporization. — If the heat of the liquid be subtracted from the total heat, the remainder is called the heat of vaporization, and is represented by r , so that

$$r = H - q.$$

Internal and External Latent Heat. — The heat of vaporization overcomes external pressure, and changes the state from liquid to vapor at constant temperature and pressure. Let the specific volume of saturated vapor be s , and that of the liquid be σ , then the change of volume is $s - \sigma = u$, on passing from the liquid to the vaporous state. The external work is

$$p(s - \sigma) = pu,$$

and the corresponding amount of heat, or the external latent heat, is

$$Ap(s - \sigma) = Apu,$$

A being the reciprocal of the mechanical equivalent of heat.

* *Annales de Chimie et de Physique*, 1867.

The heat required to do the disgregation work, or the internal latent heat, is

$$\rho = r - A p u.$$

Specific Volume and Density of Steam. — On account of the great difficulty of direct determination of the weight of saturated steam, it is customary to calculate the specific volume of steam by aid of the following equation, derived by the application of the principles of thermodynamics to the general equation representing the properties of saturated vapor: —

$$s = \frac{r}{AT} \cdot \frac{1}{\frac{dp}{dt}} + \sigma,$$

in which A is the reciprocal of the mechanical equivalent of heat, T is the temperature from the absolute zero, and σ is the volume of one unit of weight of the liquid from which the vapor is formed. The differential coefficient $\frac{dp}{dt}$ can be calculated by aid of the equations on page 8.

The absolute temperature is obtained by adding 273 to the temperature in degrees Centigrade, or 459.5 to the temperature in degrees Fahrenheit.

The volumes and densities of saturated steam given in Tables I and III were calculated by this method.

It is of interest to consider the degree of accuracy that may be expected from this method of calculating the density of saturated vapor. The value of r depends on H and q , the total heat and the heat of the liquid; the latter is now well known, but the total heat is probably in doubt to the extent of $\frac{1}{1000}$ and may be more. The absolute temperature T appears to be better known and may be subject to an error of no more than $\frac{1}{10000}$ or $\frac{1}{20000}$; and the mechanical equivalent $\frac{1}{A}$ of heat is perhaps as well determined as the absolute temperature. The least satisfactory factor in the expression is the differential coefficient $\frac{dp}{dt}$, which is derived by differentiating one of the empirical equations on pages 5 and 6. It is true that the resulting equations on page 8 afford a ready means of computing values of the coefficient with great apparent accuracy, but some idea of the essential vagueness of the method may be obtained by comparing computations of the specific volume of saturated steam at 212° C., a point for which

either equation B_1 or equation C_1 will give the pressure as 14.6967 pounds per square inch. The specific volume by aid of equation on page 14, using equation B_1 for determining the differential coefficient, is 26.62, while the differential coefficient from equation C_1 gives 26.71; the discrepancy is about $\frac{1}{100}$; or if the mean 26.66 be taken as the probable value, either computed value is subject to an error of $\frac{1}{100}$.

Quality or Dryness Factor. — All the properties of saturated steam, such as pressure, volume, and heat of vaporization, depend on the temperature only, and are determinable either by direct experiment or by computation, and are commonly taken from tables calculated for the purpose.

Many of the problems met in engineering deal with mixtures of liquid and vapor, such as water and steam. In such problems it is convenient to represent the proportions of water and steam by a variable known as the quality or the dryness factor; this factor, x , is defined as that portion of each pound of the mixture which is steam; the remnant, $1 - x$, is consequently water.

Specific Volume of Wet Steam. — If a pound of a homogeneous mixture of water and steam is x part steam, then the specific volume may be represented by

$$v = xs + (1 - x)\sigma = xu + \sigma$$

where u is the increase of volume due to vaporization.

Intrinsic Energy. — It has been shown that the heat of vaporization can be broken into the two parts $A pu$ and ρ , the first being required to do external work and the second internal work; the latter part together with the heat of the liquid form the heat equivalent of the intrinsic energy so that

$$E = \frac{1}{A}(\rho + q),$$

or if only x part is vaporized

$$E = \frac{1}{A}(x\rho + q).$$

Entropy. — In the discussion of steam-engines or other heat engines, it is convenient to begin by considering the way in which steam (or other working substance) would behave if the cylinder were made of non-conducting material. Afterwards the effect of the actual material can

be investigated. The expansion line which an indicator would draw under such conditions is called an adiabatic line. Calculations for adiabatic changes of steam can be made by aid of a special function devised for the purpose and called entropy. A discussion of adiabatic actions and of entropy can be found in any text-book on Thermodynamics; for example, on pages 17 and 31 of the *Thermodynamics of the Steam Engine* by the author. It is sufficient for our present purpose to consider that entropy can be expressed numerically and that the numerical values enter into the calculation of certain engineering problems.

It is customary to represent entropy in general by ϕ , but entropy may be represented by θ in dealing with a liquid like water.

The second law of thermodynamics enables us to deduce the equation

$$d\phi = \frac{dQ}{T},$$

in which dQ is an infinitesimal amount of heat added at the absolute temperature T . This equation is the basis of the calculation of entropy.

Entropy of Vaporization. — If a pound of steam at the temperature t (or absolute temperature T) is partially vaporized, the heat expended for that purpose is xr ; the temperature being constant the above equation may be directly integrated giving

$$\phi - \phi_0 = \frac{xr}{T} = x \frac{r}{T}.$$

In Tables I, II, and III values of $\frac{r}{T}$ are given for each degree or each pound as the case may be.

Entropy of the Liquid. — The increase of entropy due to heating water from freezing-point to any temperature t may be represented by the equation

$$\theta = \int \frac{dq}{T} = \int \frac{cdt}{T}.$$

Inspection of the table on page 10 shows that the specific heat of water is but little larger than unity; it is convenient to represent it by the expression

$$c = 1 + k;$$

this expression introduced in the preceding equation gives

$$\theta = \int \frac{dt}{T} + \int \frac{k dt}{T} = \log_e \frac{T}{T_0} + \int_{t_0}^t k \frac{dt}{T},$$

where t_0 and T_0 are the temperature by the thermometer of freezing, the corresponding absolute temperature. The first part of the expression for the entropy of the liquid can be computed readily, the second part (which is small) can be determined graphically with great precision. This method was used for the tables of the entropies of saturated steam.

To obtain the entropy of any liquid named on page 11, we may first differentiate the proper equation to obtain dq and then integrate as indicated by the equation

$$\theta = \int \frac{dq}{T}.$$

The values given in Tables IV to IX were determined in this way, those for the two following tables were computed in the same manner.

Entropy of a Mixture of a Liquid and its Vapor.—The increase in entropy due to heating a unit of weight of a liquid from freezing-point to the temperature t and then vaporizing a portion of it is

$$\theta + \frac{x\tau}{T},$$

where θ is the entropy of the liquid, τ is the heat of vaporization, and T is the absolute temperature. For steam $\frac{\tau}{T}$ may be taken from the tables; for other vapors it must usually be calculated.

For any other state determined by x_1 and t_1 we shall have, for the increase of entropy above that of the liquid at freezing-point,

$$\frac{x_1 \tau_1}{T_1} + \theta_1.$$

The change of entropy in passing from one state to another is

$$\phi - \phi_1 = \frac{x\tau}{T} + \theta - \frac{x_1 \tau_1}{T_1} - \theta_1.$$

When the condition of the mixture of a liquid and its vapor is given by the pressure and value of x , then a table giving the properties at each pound may be conveniently used for this work.

Adiabatic Equation for a Liquid and its Vapor. — During an adiabatic change the entropy is constant, so that the preceding equation gives

$$\frac{x_1 r_1}{T_1} + \theta_1 = \frac{x_2 r_2}{T_2} + \theta_2.$$

When the initial state, determined by x_1 and t_1 or p_1 , is known and the final temperature t_2 , or the final pressure p_2 , the final value x_2 may be found by this equation. The initial and final volumes may be calculated by the equations

$$v_1 = x_1 u_1 + \sigma \text{ and } v_2 = x_2 u_2 + \sigma.$$

Tables of the properties of saturated vapor commonly give the specific volume s but

$$s = u + \sigma.$$

The value of σ for water is 0.016, and for other liquids will be found in Table XII.

For example, one pound of dry steam at 100 pounds absolute has the following properties found in Table II:

$$t_1 = 327^\circ.6 \text{ F.} \quad \frac{r_1}{T_1} = 1.1228 \quad \theta_1 = 0.4743 \quad s_1 = 4.409 \quad x_1 = 1$$

If the final pressure is 15 pounds absolute, we have

$$t_2 = 213^\circ.0 \text{ F.} \quad \frac{r_2}{T_2} = 1.4358 \quad \theta_2 = 0.3141 \quad s_2 = 26.21$$

whence

$$\begin{aligned} 1.5971 &= 1.4358 x + 0.3141 \\ \therefore x_2 &= .8935 \end{aligned}$$

The initial and final volumes are

$$\begin{aligned} v_1 &= s_1 = 4.409 \\ v_2 &= x_2 u_2 + \sigma = 23.40 \end{aligned}$$

Such a problem cannot be solved inversely, that is we cannot assume a final volume and determine directly the temperature and pressure corresponding. The Temperature-Entropy Table to be explained later

however, give an approximate solution directly, and an exact solution by interpolation.

External Work during Adiabatic Expansion. — Since no heat is transferred during an adiabatic expansion, all of the intrinsic energy lost is changed into external work, so that

$$W = E_1 - E_2 = \frac{1}{A} (q_1 - q_2 + x_1\rho_1 - x_2\rho_2)$$

For example, the external work of one pound of dry steam in expanding adiabatically from 100 pounds to 15 pounds absolute is

$$W = 778 (208.1 - 181.3 + 1 \times 802.4 - 0.8935 \times 89.30)$$

$$W = 121.3 \times 778 = 94,370 \text{ foot-pounds.}$$

Attention should be called to the unavoidable defect of this method of calculation of external work during adiabatic expansion, in that it depends on taking the difference of quantities which are of the same order of magnitude. For example, the above calculation appears to give four figures of significant figures, while, as a matter of fact, the total heat H in which ρ is derived is affected by a probable error of $\frac{1}{500}$ or perhaps more.

Both the quantities

$$q_1 + x_1\rho_1 \text{ and } q_2 + x_2\rho_2$$

have a numerical value somewhere near 1000, and an error of $\frac{1}{500}$ is

equivalent to two thermal units, so that the probable error of the calculation is nearly two per cent. For a wider range of temperature the error is less, and for a narrower range it is of course larger. This error should be borne in mind in considering the use of approximate methods of calculation, for example, by aid of a diagram like the temperature-entropy diagram.

Heat Contents. — The heat required to raise one pound of water from the freezing-point to a given temperature t corresponding to a pressure p , and to vaporize a part x at that pressure is represented by

$$x\rho + q;$$

the quantity may be called the heat contents.

Rankine's Cycle.—An important investigation for the steam-engine may be made by aid of the accompanying figure which represents the indicator diagram from a steam-engine without clearance and with a nonconducting cylinder. Steam is admitted at an absolute pressure p_1 from a to b ; adiabatic expansion follows from b to c ; finally the steam is exhausted from c to d at the pressure p_2 . The external work during admission for one pound of steam having the quality x_1 is

$$p_1 v_1 = p_1 (x_1 u_1 + \sigma);$$

the external work during expansion is

$$E_1 - E_2 = \frac{1}{A} (q_1 - q_2 + x_1 p_1 - x_2 p_2);$$

and the external work during exhaust is

$$p_2 v_2 = p_2 (x_2 u_2 + \sigma)$$

which must be subtracted since it is done by the piston on the steam. The effective work of the cycle is

$$p_1 v_1 + E_1 - E_2 - p_2 v_2$$

or substituting the proper values

$$W = \frac{1}{A} (q_1 + x_1 p_1 + A p_1 x_1 u_1 - q_1 - x_2 p_2 - A p_2 x_2 u_2) + (p_1 + p_2) \sigma;$$

the last term is small and may be dropped.

Remembering that

$$r = \rho + A p u,$$

we have

$$W = \frac{1}{A} (q_1 + x_1 r_1 - q_2 - x_2 r_2).$$

The values of r and q may be taken from Tables I, II, or III, and the value of x_2 can be determined by aid of the equation

$$\frac{x_1 r_1}{T_1} + \theta_1 = \frac{x_2 r_2}{T_2} + \theta_2.$$

By the first law of thermodynamics the difference between the heat supplied to an engine and the heat rejected, is equivalent to the work done, provided there are no losses; therefore,

$$Q_1 - Q_2 = x_1 r_1 + q_1 - (x_2 r_2 + q_2).$$

This most important conclusion can be stated as follows: the heat angled into work by a steam-engine working on Rankine's cycle, is equal to the difference in the heat contents of the steam supplied to and exhausted by the engine.

This same expression is found in the discussion of steam-turbines.

Problems of this nature can be solved immediately by aid of the temperature-Entropy Table.

Superheated Steam. --- A dry and saturated vapor, not in contact with the liquid from which it is formed, may be heated to a temperature greater than that corresponding to the given pressure for the same vapor when saturated; such a vapor is said to be superheated. When far removed from the temperature of saturation, such a vapor follows the laws of perfect gases very nearly, but near the temperature of saturation the departure from those laws is too great to allow of calculations by them for engineering purposes.

All the characteristic equations that have been proposed have been derived from the equation

$$pv = RT,$$

which is very nearly true for the so-called perfect gases at moderate temperatures and pressures; it is, however, well known that the equation does not give satisfactory results at very high pressures or very low temperatures. To adapt this equation to represent superheated gas, a corrective term is added to the right-hand side which may most conveniently be assumed to be a function of the temperature and pressure, so that calculations by it may be made to join on to those for saturated steam.

The most satisfactory characteristic equation of this sort is that given by Knoblauch,* Linde, and Klebe,

$$pv = BT - p(1 + ap) \left[C \left(\frac{37.3}{T} \right)^8 - D \right]$$

the pressure is in kilograms per square metre, v is in cubic metres, and T is the absolute temperature by the Centigrade thermometer. The constants have the following values:

$$B = 47.10, \quad a = 0.000002, \quad C = 0.031, \quad D = 0.0052.$$

In the English system of units, the pressures being in pounds per

* *Mitteilungen über Forschungsarbeiten*, etc., Heft 21, S. 33, 1905.

square foot, the volumes in cubic feet per pound, and the temperatures in the Fahrenheit scale, we have

$$pv = 85.85 T - p (1 + 0.0000976 p) \left(\frac{150,300,000}{T^3} - 0.0833 \right)$$

The following equation may be used with the pressure in pounds per square inch:

$$pv = 0.5962 T - p (1 + 0.0014 p) \left(\frac{150,300,000}{T^3} - 0.0833 \right).$$

The labor of calculation is principally in reducing the corrective term, and especially in the computation of the factor containing the temperature. Table XV gives values of this factor for each five degrees from 100° to 600° F.; the maximum error in the calculation of volume by aid of the table is about 0.4 of one per cent at 336 pounds pressure and 428° F.; that is at the upper limit of our table for saturated steam. At 150 pounds and 358° F., which is about the middle range of our table for saturated steam, the error is not more than 0.2 of one per cent, which is not greater than the probable error of the equation itself under those conditions. At lower pressures and at higher temperatures the error tends to diminish.

The following simple equation is proposed by Tumlriz* based on experiments by Battelli.

$$pv = BT - C_p,$$

where p is the pressure in kilograms per square metre, v the specific volume in cubic metres, and T the absolute temperature Centigrade. The constants to agree with Knoblauch's work should be

$$B = 47.10, \quad C = 0.016.$$

In the English system with the pressure in pounds per square foot and the volumes in cubic feet, for absolute temperatures Fahrenheit,

$$pv = 85.85 T - 0.256 p.$$

This equation has a maximum error of 0.8 of one per cent as compared with Knoblauch's equation.

Specific Heat. — Two investigations have been made of the specific heat of superheated steam at constant pressure, one by Professor Knoblauch † and Dr. Jakob and the other by Professor Thomas

* *Math. Naturw. Kl. Wien*, 1899, IIa S. 1058.

† *Mitteilungen über Forschungsarbeiten* Heft 36, p. 109.

and Mr. Short;* the results of the latter's investigation have been communicated for use in this book in anticipation of the publication of the completed report.

Professor Knoblauch's report gives the results of the investigation made under his direction in the form of a table giving specific heats at various temperatures and pressures and in a diagram, which can be found in the original memoir, and he also gives a table of mean specific heats from the temperature of saturation to various temperatures at several pressures. This latter table is given here in both the metric system and in the English system of units.

SPECIFIC HEAT OF SUPERHEATED STEAM.

Knoblauch and Jakob.

p Kg. per Sq. Cm. p Lbs. per Sq. In. ° Cent. ° Fahr.		1	2	4	6	8	10	12	14	16	18	20
14.2 99° 210°		28.4 120° 248°	56.9 143° 289°	85.3 158° 316°	113.8 169° 336°	142.2 179° 350°	170.6 187° 368°	199.1 194° 381°	227.5 200° 392°	256.0 206° 403°	284.4 211° 412°	
Fahr.	Cent.	0.463	...	...	...	...	...	...	...	...	...	...
212°	100°	0.462	0.478	0.515	...	...	...	...	...	...	...	...
302°	150°	0.462	0.475	0.502	0.530	0.560	0.597	0.635	0.677	...	...	...
392°	200°	0.463	0.474	0.495	0.514	0.532	0.552	0.570	0.588	0.609	0.635	0.66
482°	250°	0.464	0.475	0.492	0.505	0.517	0.530	0.541	0.550	0.561	0.572	0.58
572°	300°	0.468	0.477	0.492	0.503	0.512	0.522	0.529	0.536	0.543	0.550	0.55
662°	350°	0.473	0.481	0.494	0.504	0.512	0.520	0.526	0.531	0.537	0.542	0.54
752°	400°											

The construction of this table is readily understood from the following example:—*Required* the heat needed to superheat a kilogram of steam at 4 kilograms per square centimetre from saturation to 300° C. The saturation temperature (to the nearest degree) is 143° C.; so that the steam at 300° is superheated 157°, and for this is required the heat

$$157 \times 0.492 = 77.2 \text{ calories.}$$

The experiments of Professor Knoblauch were made at 2, 4, 6, and 10 kilograms per square centimetre; the remainder of the table was obtained from the diagram which was extended by aid of cross-curves to the extent indicated. Within the limits of the experimental work the table may be used with confidence, the greatest error being probably not more than

* Thesis by Mr. Short, Cornell University.

one third of one per cent. Extrapolated results are probably less reliable than those obtained directly by Professor Thomas.

The following table gives the mean specific heat of superheated steam as measured on a facsimile of Professor Thomas's original diagram without extrapolation.

SPECIFIC HEAT OF SUPERHEATED STEAM.

Thomas and Short.

Degrees of Superheat Fahr.	Pressure Lbs. per Sq. In. (Absolute.)						
	6	15	30	50	100	200	400
20°	0.536	0.547	0.558	0.571	0.593	0.621	0.649
50°	0.522	0.532	0.542	0.555	0.575	0.600	0.621
100°	0.503	0.512	0.524	0.537	0.557	0.581	0.599
150°	0.486	0.496	0.508	0.522	0.544	0.567	0.585
200°	0.471	0.480	0.424	0.509	0.533	0.556	0.574
250°	0.456	0.466	0.481	0.496	0.522	0.546	0.564
300°	0.442	0.453	0.468	0.484	0.511	0.537	0.554

Here again the arrangement of the table can be made evident by an example:—*Required* the heat needed to superheat steam 100 degrees at 200 pounds per square inch absolute. The mean specific heat from saturation is 0.557, so that the heat required is 55.7 thermal units.

Total Heat.—In the solution of problems that arise in engineering it is convenient to use the total amount of heat required to raise one pound of water from freezing-point to the temperature of saturated steam at the given pressure and to vaporize it and to superheat it at that pressure to the given temperature. This total heat may be represented by the expression

$$H = q + r + c_p (t - t_s)$$

where t is the temperature of the superheated steam, t_s is the temperature of saturated steam at the given pressure p , and q and r are the corresponding heat of the liquid and heat of vaporization. The mean specific heat c_p may usually be selected from one of the given tables without interpolation, as a small variation does not have a very large effect.

The total heats or heat contents of superheated steam in the temperature-entropy table were obtained by the following method. From Pro-

fessor Thomas's diagram giving mean specific heats, specific heats at various temperatures and at a given pressure were obtained, and the curves thus obtained were faired after a comparison with curves constructed with Professor Knoblauch's specific heats at those temperatures. These curves were then integrated graphically and the results checked by comparison with his mean specific heats.

Entropy. — By the entropy of superheated steam is meant the increase of entropy due to heating water from freezing-point to the temperature of saturated steam at the given pressure, to the vaporization and to the superheating at that pressure. This operation may be represented as follows:

$$\theta + \frac{r}{T_s} + \int_{T_s}^T \frac{c_p dt}{T}$$

in which T is the absolute temperature of the superheated steam, and T_s is the temperature of the saturated steam at the given pressure; θ and $\frac{r}{T_s}$ can be taken from Table I. The last term was obtained for the temperature-entropy table by graphical integration of curves plotted with values of $\frac{c_p}{T}$ derived from the curves of specific heats at various temperatures just described under the previous section.

Properties of Sulphur Dioxide. — One of the most interesting and important applications of the theory of superheated vapors is found in the approximate calculation of properties of certain volatile liquids which are used in refrigerating-machines, and for which we have not sufficient experimental data to construct tables in the manner followed for the fluids already discussed.

All attempts in this line have followed the example of Ledoux, who made the first attempt and who naturally took for the basis of his investigations the form of equation proposed by Zeuner for superheated steam, namely,

$$pv = BT - Cp^a.$$

Investigations by Knoblauch already discussed show that this equation can be considered only a crude approximation for steam, and consequently less confidence can be placed on investigations by its aid than we formerly thought. Nevertheless, in our present condition and until more complete experimental data are available we are constrained to

use some such approximate method, and it does not appear profitable to recompute tables at this time.

Fortunately Regnault determined the relation of temperature and pressure, and gave the following equations for pressure in millimetres of mercury, the temperature being on the Centigrade thermometer.

SULPHUR DIOXIDE.	AMMONIA.
$\log p = a - b\alpha^n - c\beta^n$	$\log p = a - b\alpha^n - c\beta^n$
$a = 5.6663790$	$a = 11.5043330$
$b = 3.0146890$	$b = 7.4503520$
$c = 0.1465400$	$c = 0.9499674$
$\log \alpha = 9.9972989 - 10$	$\log \alpha = 9.9996014 - 10$
$\log \beta = 9.9872900 - 10$	$\log \beta = 9.9939729 - 10$
$n = t + 28$	$n = t + 22$
Limits, $-28, +62$.	Limits, $-22, +82$.

The corresponding equations for pressures in pounds per square inch for temperatures Fahrenheit are:

SULPHUR DIOXIDE.	AMMONIA.
$\log p = a - b\alpha^n - c\beta^n$	$\log p = a - b\alpha^n - c\beta^n$
$a = 3.9527847$	$a = 9.7907380$
$\log b = 0.4792425$	$\log b = 0.8721769 - 10$
$\log c = 9.1659562 - 10$	$\log c = 9.9777087 - 10$
$\log \alpha = 9.9984994 - 10$	$\log \alpha = 9.9997786 - 10$
$\log \beta = 9.99293890 - 10$	$\log \beta = 9.9966516 - 10$
$n = t + 18^{\circ}.4 \text{ F.}$	$n = t + 7.6^{\circ} \text{ F.}$

In the *Thermodynamics of the Steam-engine* by the author, pages 117 to 126, this calculation has been carried out with the best ascertained properties of the superheated vapors of sulphur dioxide and ammonia with the following results:

SULPHUR DIOXIDE.	AMMONIA.
French units, $pv = 14.5 T - 48 p^{0.22}$	$pv = 54.3 T - 142 p^{\frac{1}{4}}$
English units, $pv = 26.4 T - 184 p^{0.22}$	$pv = 99 T - 710 p^{\frac{1}{4}}$

The application of these equations to the vapors when saturated gives the following results:

HEAT OF VAPORIZATION.

SULPHUR DIOXIDE.

AMMONIA.

French units, $r = 98 - 0.27t$ $r = 300 - 0.8t$ English units, $r = 176 - 0.27(t - 32)$ $r = 540 - 0.8(t - 32)$

SPECIFIC HEAT OF THE LIQUID.

SULPHUR DIOXIDE.

AMMONIA.

 $c = 0.4$ $c = 1.1$

Tables X and XI were calculated by aid of the equations written, and may be of use for approximate calculations, in default of more reliable tables.

Other Data. — For convenience the following data are assembled: —

Length of the metre in inches	39.37.
Weight of the kilogram in pounds	2.2046.
Weight of 1 litre (1 cu. decimetre) of mercury	13.5959 kilos.
One horse power, in foot pounds per second	550.
<i>Cheval à vapeur</i> , in kilogrammetres per second	75.
Normal pressure of the atmosphere	{ 760 mm. of mercury.
	{ 10,333 kilos per sq. m.
	{ 14.7 lbs. per sq. in.
	{ 2116 lbs. per sq. ft.
One inch of mercury is equivalent to	{ 29.921 in. of mercury.
	{ 0.4912 pound.
Absolute temperature of freezing-point	{ 273° C.
	{ 491° .5 F.
Mechanical equivalent of heat.	{ 427 meter-kilograms
	{ 778 foot-pounds.

Explanation of Tables. — Table I, which in a sense is the fundamental table for English units, has been computed by the proper equations and methods as already explained, for each degree Fahrenheit; and may be relied upon to have no errors of calculation greater than half a unit in the last significant figure. The proper degree of accuracy to be attributed to any property may be judged from the preceding statements of data and transformations. In general, attention has been given to this matter each property being stated with the degree of accuracy considered proper, avoiding superfluous figures; an exception will be found in the earlier

parts of Tables I and II where the heat of vaporization is stated to five significant figures, while the data may appear to warrant only four; but there are conveniences in keeping one decimal place throughout these tables for this property.

Table II is made by interpolation from Table I, but the work has been carried on in such a manner that it has practically the same degree of accuracy.

Table III was computed directly from the proper equation for each degree Centigrade. English equivalents are added so that ready conversions can be made from one system to the other or a combination of the two systems may be used.

Tables IV to IX were taken from "Zeuner's Mechanische Warmetheorie," making a correction for the true value of the mechanical equivalent of heat, instead of Joule's earlier value, and adding columns of entropy of the liquid.

Tables X and XI for sulphur dioxide and ammonia were calculated by the approximate method described earlier; though open to a considerable degree of error they may be used till better information can be obtained.

Tables XII and XIII do not appear to call for comment.

Table XIV has been computed to aid in reducing data from tests where pressures are recorded in inches of mercury. Pressures measured in inches of mercury are usually less than that of the atmosphere and the reading gives the vacuum, which is to be subtracted from the barometric reading to find the absolute pressure in inches of mercury. The table then gives the pressure in pounds per square inch which can be taken to Table II to find the properties of steam.

Table XV has been computed to reduce the labor of calculating the volume of superheated steam. It gives the value of the factor

$$\frac{150,300,000}{T^3} - 0.0833,$$

in Knoblauch's equation on page 21 for English units. By aid of this table the volume for a given temperature and pressure can be readily computed. The inverse calculation assuming the volume cannot be made directly, but such problems can be resolved by trial without much labor. If the pressure and volume are assumed the temperature can be found neglecting the correction term, and this will enable us to enter the table at nearly the right place.

TEMPERATURE-ENTROPY TABLE.

This table has been made to facilitate the solution of problems involving adiabatic action for steam and some other problems.

It gives for each degree Fahrenheit and for each hundredth of a unit of entropy, the quality, heat contents and specific volume, both for moist and for superheated steam. For convenience the pressures corresponding to the temperatures are also given.

The properties named may be more exactly stated as follows:—

Moist Steam

Quality, x ; the portion of a pound which is steam.

Heat contents, $xr + q$.

Specific volume, $v = xu + \sigma$.

Superheated Steam

Quality, $t - t_{sat}$; the number of degrees of superheating.

Heat contents, $r + q + c_p (t - t_{sat})$.

Specific volume, v .

The table is arranged in groups of eight triple columns, four on each of two pages, which face each other. Such a group is continued from the highest to the lowest temperature; then comes the next group of eight triple columns, etc. Commonly the solution of a given problem may be found in a single group or in two successive groups. It is important to note this feature of arrangement to avoid aimless search.

For engineering purposes it will be found sufficient to take the nearest temperature of saturated steam and the nearest column of entropy, and to take from the corresponding place in the table the required quantities. At the highest temperature (420° F.), the error of half a degree of temperature corresponds to an error of a pound and a half in pressure; the other properties have the following errors: heat contents 0.15 of a B.T.U., and specific volume 0.008 of a cubic foot, which latter amounts to half of one per cent. At lower temperature the variation of pressure is progressively less, but the other two properties named are affected to about the same degree. Such errors if they were carried into computations and united with other errors in such a way as to occasion greater uncertainties would be liable to be inconvenient; but when found in the

final results of computations and their limits known, are not likely to cause trouble.

On the other hand the error of half a hundredth of a unit of entropy will at 400° correspond to 0.51 of a per cent of priming or moisture in the steam, and will carry a like error into all of the work. This uncertainty of using the table without interpolation will be nearly the same throughout the table.

Should the errors named be considered to be too large in any case, greater accuracy can be had by interpolation. Direct interpolation for temperature or for entropy can be made with facility; cross-interpolation will be somewhat more troublesome.

The use of the tables can best be illustrated by a few examples.

Example 1.—Given the pressure by the gauge 150.3 pounds (165 absolute) and the priming 2.0 per cent ($x = 0.980$) to find the entropy, heat contents and specific volume. This condition is found most nearly on page 78 and gives

$$\phi = 1.54 \qquad xr + q = 1176.8 \qquad v = 2.699.$$

Example 2.—Given the pressure 150.3 pounds by the gauge and the temperature 508° F., to find the entropy, heat contents and specific volume. The superheating is 142° and the temperature of saturated steam corresponding to 165 pounds absolute is 366° F. These conditions are found on page 93 and give

$$\phi = 1.65 \qquad r + q + c_p (t - t_s) = 1274 \qquad v = 3.395.$$

Example 3.—Required the amount of heat changed into work per pound of steam for Rankine's cycle, the initial pressure being 150.3 pounds by the gauge and the exhaust being under a vacuum of 26 inches of mercury. The steam initially has 1.0 per cent of priming, and the barometer stands at 30 inches of mercury.

The exhaust pressure is 4 inches of mercury which by Table XIV corresponds to 1.96 pound. The initial absolute pressure is found by adding the equivalent of 30 inches of mercury or

$$14.7 \text{ pounds to } 150.3 \text{ giving } 165.0.$$

The solution of this problem is found in the column for entropy 1.55.

	p	t	x	$xx + q$	v
Initial	165	366	.990	1185.0	2.726
Final	2	126	.784	<u>899.1</u>	137.4
Heat changed into work B.T.U.				285.9	

Example 4. — Required the velocity of discharge from a nozzle which takes steam at 150.3 pounds by the gauge and expands down to 26 inches of vacuum; the initial priming being .01 and the barometer being at 30 inches.

The available heat is the same as that for the previous problem, namely, 285.9 B.T.U. for an adiabatic expansion. The velocity without friction would be

$$V = \sqrt{2 \times 32.2 \times 778 \times 285.9} = 3786.$$

If an allowance of ten per cent be made for friction the velocity will be

$$V = \sqrt{2 \times 32.2 \times 778 \times 0.90 \times 285.9} = 3590.$$

The specific volume at exit can be found as follows: — The heat that would be changed into work with an allowance of ten per cent for friction will be

$$0.90 \times 285.9 = 257.2 \text{ B.T.U.}$$

Subtracting from the initial heat contents leaves

$$1185 - 257 = 928 \text{ B.T.U.}$$

for the heat contents at 126° F. at the discharge, and this property is found for the entropy 1.60; the corresponding specific volume is 142 cubic feet.

Example 5. — Suppose that the conditions of example 3 are applied to a steam-turbine which has four pressure stages. For adiabatic expansion the available heat per stage will be

$$285.9 \div 4 = 71.4 \text{ B.T.U.}$$

This quantity may be subtracted four times successively from the initial heat contents and the results will be the heat contents for the

PROPERTIES OF STEAM AND OTHER VAPORS.

intermediate and final pressures. All the properties are to be located in the columns for entropy 1.55. The results are as follows: —

	INITIAL STAGE.	SECOND STAGE.	THIRD STAGE.	FOURTH STAGE.	DISCHARGE.
Heat contents	1185.0	1113.5	1042.1	970.6	899.1
Temperatures	366	299	237	180	126
Pressures	165	66.2	23.7	7.50	1.99

A full discussion of this method with allowance for friction and other losses together with its limitations will be found in the author's "Thermodynamics of the Steam Engine."

TABLE I.
SATURATED STEAM.

ENGLISH UNITS

Temperature, Degrees Fahr.	Pressure Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, in One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>App</i>	<i>θ</i>	<i>r</i> <i>T</i>	<i>s</i>	<i>γ</i>	<i>t</i>
32	0.0890 ₃₆	0.0	1091.7	1035.8	55.9	0.0000	2.2211	3395 ₁₂₇	0.0002945 ₁₁₅	32
33	0.0926 ₃₇	1.0	1091.0	1035.0	56.0	0.0021	2.2152	3268 ₁₂₃	0.0003060 ₁₂₀	33
34	0.0963 ₃₉	2.0	1090.3	1034.2	56.1	0.0041	2.2094	3145 ₁₁₆	0.0003180 ₁₂₁	34
35	0.1002 ₄₀	3.0	1089.6	1033.5	56.1	0.0061	2.2035	3029 ₁₁₂	0.0003301 ₁₂₇	35
36	0.1042 ₄₁	4.0	1088.9	1032.7	56.2	0.0082	2.1975	2917 ₁₀₇	0.0003428 ₁₃₁	36
37	0.1083 ₄₃	5.0	1088.2	1031.9	56.3	0.0102	2.1916	2810 ₁₀₄	0.0003559 ₁₃₆	37
38	0.1126 ₄₄	6.1	1087.4	1031.1	56.3	0.0122	2.1858	2706 ₉₉	0.0003695 ₁₄₁	38
39	0.1170 ₄₆	7.1	1086.7	1030.3	56.4	0.0142	2.1800	2607 ₉₅	0.0003836 ₁₄₅	39
40	0.1216 ₄₈	8.1	1086.0	1028.5	56.5	0.0163	2.1741	2512 ₉₁	0.0003981 ₁₅₀	40
41	0.1264 ₄₉	9.1	1085.3	1028.7	56.6	0.0183	2.1684	2421 ₈₇	0.0004131 ₁₅₄	41
42	0.1313 ₅₁	10.1	1084.7	1028.0	56.7	0.0203	2.1628	2334 ₈₅	0.0004285 ₁₆₁	42
43	0.1364 ₅₃	11.1	1084.0	1027.2	56.8	0.0223	2.1572	2249 ₈₀	0.0004446 ₁₆₄	43
44	0.1417 ₅₄	12.1	1083.3	1026.4	56.9	0.0243	2.1516	2169 ₇₇	0.0004610 ₁₇₀	44
45	0.1471 ₅₇	13.1	1082.6	1025.7	56.9	0.0262	2.1459	2092 ₇₄	0.0004780 ₁₇₅	45
46	0.1528 ₅₈	14.1	1081.9	1024.9	57.0	0.0282	2.1402	2018 ₇₁	0.0004955 ₁₈₁	46
47	0.1586 ₆₀	15.1	1081.2	1024.1	57.1	0.0302	2.1346	1947 ₆₉	0.0005136 ₁₈₈	47
48	0.1646 ₆₂	16.1	1080.5	1023.3	57.2	0.0322	2.1291	1878 ₆₆	0.0005324 ₁₉₅	48
49	0.1708 ₆₅	17.1	1079.8	1022.5	57.3	0.0342	2.1236	1812 ₆₃	0.0005519 ₁₉₉	49
50	0.1773 ₆₆	18.1	1079.1	1021.7	57.4	0.0361	2.1180	1749 ₆₀	0.0005718 ₂₀₅	50
51	0.1839 ₆₉	19.1	1078.4	1021.0	57.4	0.0381	2.1124	1689 ₅₉	0.0005923 ₂₁₂	51
52	0.1908 ₇₁	20.1	1077.7	1020.2	57.5	0.0401	2.1069	1636 ₅₆	0.0006135 ₂₁₈	52
53	0.1979 ₇₃	21.1	1077.0	1019.4	57.6	0.0420	2.1014	1574 ₅₄	0.0006353 ₂₂₆	53
54	0.2052 ₇₆	22.1	1076.3	1018.6	57.7	0.0440	2.0960	1520 ₅₂	0.0006579 ₂₃₃	54
55	0.2128 ₇₈	23.1	1075.6	1017.8	57.8	0.0459	2.0906	1468 ₅₀	0.0006812 ₂₄₀	55
56	0.2206 ₈₁	24.1	1074.9	1017.0	57.9	0.0479	2.0851	1418 ₄₈	0.0007052 ₂₄₇	56
57	0.2287 ₈₃	25.1	1074.2	1016.2	58.0	0.0498	2.0797	1370 ₄₆	0.0007299 ₂₅₄	57
58	0.2370 ₈₆	26.1	1073.5	1015.5	58.0	0.0517	2.0744	1324 ₄₅	0.0007553 ₂₆₃	58
59	0.2456 ₈₉	27.1	1072.8	1014.7	58.1	0.0537	2.0691	1279 ₄₂	0.0007816 ₂₆₈	59
60	0.2545 ₉₂	28.1	1072.1	1013.9	58.2	0.0556	2.0638	1237 ₄₁	0.0008084 ₂₇₈	60
61	0.2637 ₉₄	29.1	1071.4	1013.1	58.3	0.0575	2.0585	1196 ₄₀	0.0008362 ₂₈₉	61
62	0.2731 ₉₈	30.1	1070.8	1012.4	58.4	0.0594	2.0533	1156 ₃₈	0.0008651 ₂₉₄	62
63	0.2829 ₁₀₀	31.1	1070.1	1011.6	58.5	0.0614	2.0481	1118 ₃₇	0.0008945 ₃₀₄	63

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight in Pounds of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apv</i>	<i>θ</i>	<i>T</i>	<i>s</i>	<i>γ</i>	<i>t</i>
64	0.2929 ¹⁰⁴	32.1	1069.4	1010.8	58.6	0.0633	2.0431	1081.37	0.0009249 ³¹³	64
65	0.3033 ¹⁰⁷	33.1	1068.7	1010.0	58.7	0.0652	2.0378	1044.37	0.0009562 ³²⁶	65
66	0.3140 ¹¹⁰	34.1	1068.0	1009.3	58.7	0.0671	2.0324	1011.33	0.0009888 ³³²	66
67	0.3250 ¹¹⁴	35.1	1067.3	1008.5	58.8	0.0690	2.0272	978.5 ³¹⁶	0.001022 ³⁵	67
68	0.3364 ¹¹⁷	36.1	1066.6	1007.7	58.9	0.0709	2.0221	946.9 ³⁰⁵	0.001057 ³⁵	68
69	0.3481 ¹²¹	37.1	1065.9	1006.9	59.0	0.0728	2.0169	916.4 ²⁹⁴	0.001092 ³⁵	69
70	0.3602 ¹²⁴	38.1	1065.2	1006.1	59.1	0.0747	2.0118	887.0 ²⁸³	0.001128 ³⁷	70
71	0.3726 ¹²⁸	39.1	1064.5	1005.3	59.2	0.0766	2.0066	858.7 ²⁷³	0.001165 ³⁸	71
72	0.3854 ¹³²	40.1	1063.8	1004.5	59.3	0.0784	2.0015	831.4 ²⁶⁴	0.001203 ³⁹	72
73	0.3986 ¹³⁶	41.1	1063.1	1003.7	59.4	0.0803	1.9964	805.0 ²⁵⁴	0.001242 ⁴¹	73
74	0.4122 ¹⁴⁰	42.1	1062.4	1002.9	59.5	0.0822	1.9914	779.6 ²⁴⁴	0.001283 ⁴²	74
75	0.4262 ¹⁴⁴	43.1	1061.7	1002.2	59.5	0.0841	1.9863	755.2 ²³⁷	0.001325 ⁴²	75
76	0.4406 ¹⁴⁹	44.1	1061.0	1001.4	59.6	0.0859	1.9813	731.5 ²²⁸	0.001367 ⁴⁴	76
77	0.4555 ¹⁵³	45.1	1060.3	1000.6	59.7	0.0878	1.9763	708.7 ²¹⁹	0.001411 ⁴⁵	77
78	0.4708 ¹⁵⁷	46.1	1059.6	999.8	59.8	0.0896	1.9713	686.8 ²¹²	0.001456 ⁴⁶	78
79	0.4865 ¹⁶²	47.1	1058.9	999.0	59.9	0.0915	1.9663	665.6 ²⁰⁴	0.001502 ⁴⁸	79
80	0.5027 ¹⁶⁷	48.1	1058.2	998.2	60.0	0.0934	1.9614	645.2 ¹⁹⁷	0.001550 ⁴⁹	80
81	0.5194 ¹⁷¹	49.1	1057.5	997.4	60.1	0.0952	1.9565	625.5 ¹⁹¹	0.001596 ⁵⁰	81
82	0.5365 ¹⁷⁷	50.1	1056.9	996.7	60.2	0.0971	1.9516	606.4 ¹⁸⁵	0.001649 ⁵²	82
83	1.5542 ¹⁸¹	51.1	1056.2	995.9	60.3	0.0989	1.9468	587.9 ¹⁷⁸	0.001701 ⁵³	83
84	0.5723 ¹⁸⁷	52.1	1055.5	995.1	60.4	0.1007	1.9420	570.1 ¹⁷¹	0.001754 ⁵⁴	84
85	0.5910 ¹⁹²	53.1	1054.8	994.3	60.5	0.1026	1.9372	553.0 ¹⁶⁶	0.001808 ⁵⁵	85
86	0.6102 ¹⁹⁷	54.1	1054.1	993.6	60.5	0.1044	1.9324	536.4 ¹⁶⁰	0.001864 ⁵⁵	86
87	0.6299 ²⁰³	55.1	1053.4	992.8	60.6	0.1062	1.9276	520.4 ¹⁵⁶	0.001922 ⁵⁸	87
88	0.6502 ²⁰⁹	56.1	1052.7	992.0	60.7	0.1081	1.9228	504.8 ¹⁴⁸	0.001981 ⁶⁰	88
89	0.6711 ²¹⁴	57.1	1052.0	991.2	60.8	0.1099	1.9180	490.0 ¹⁴⁴	0.002041 ⁶²	89
90	0.6925 ²²¹	58.1	1051.3	990.4	60.9	0.1117	1.9132	475.6 ¹³⁹	0.002103 ⁶⁴	90
91	0.7146 ²²⁶	59.1	1050.6	989.6	61.0	0.1135	1.9085	461.7 ¹³⁶	0.002167 ⁶⁵	91
92	0.7372 ²³³	60.1	1049.9	988.8	61.1	0.1153	1.9037	448.1 ¹³¹	0.002232 ⁶⁷	92
93	0.7605 ²³⁹	61.1	1049.2	988.0	61.2	0.1171	1.8990	435.0 ¹²⁶	0.002299 ⁶⁸	93
94	0.7844 ²⁴⁶	62.1	1048.5	987.2	61.3	0.1189	1.8943	422.4 ¹²²	0.002367 ⁷¹	94
95	0.8090 ²⁵²	63.1	1047.8	986.4	61.4	0.1207	1.8896	410.2 ¹¹⁸	0.002438 ⁷³	95
96	0.8342 ²⁵⁹	64.1	1047.1	985.6	61.5	0.1225	1.8850	398.4 ¹¹⁵	0.002511 ⁷⁴	96
97	0.8601 ²⁶⁶	65.0	1046.5	984.9	61.6	0.1243	1.8805	386.9 ¹¹⁰	0.002585 ⁷⁵	97
98	0.8867 ²⁷³	66.0	1045.8	984.1	61.7	0.1261	1.8759	375.9 ¹⁰⁷	0.002660 ⁷⁸	98
99	0.9140 ²⁸¹	67.0	1045.1	983.3	61.8	0.1279	1.8713	365.2 ¹⁰⁵	0.002738 ⁸⁰	99
100	0.9421 ²⁸⁸	68.0	1044.4	982.6	61.8	0.1297	1.8667	354.7 ⁹⁹	0.002818 ⁸²	100
101	0.9709 ²⁹¹	69.0	1043.7	981.8	61.9	0.1314	1.8621	344.8 ⁹⁶	0.002900 ⁸⁴	101
102	1.000	70.0	1043.1	981.1	62.0	0.1332	1.8575	335.2 ⁹³	0.002984 ⁸⁵	102
103	1.031	71.0	1042.4	980.3	62.1	0.1350	1.8530	325.9 ⁹¹	0.003069 ⁸⁸	103
104	1.062	72.0	1041.7	979.5	62.2	0.1368	1.8485	316.8 ⁸⁸	0.003157 ⁹⁰	104

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
105	1.094 ₃₃	73.0	1041.0	978.7	62.3	0.1385	1.8440	308.0 ₈₆	0.003247 ₉₃	105
106	1.127 ₃₃	74.0	1040.3	977.9	62.4	0.1403	1.8396	295.4 ₈₂	0.003340 ₉₄	106
107	1.160 ₃₅	75.0	1039.6	977.1	62.5	0.1421	1.8351	291.2 ₇₉	0.003434 ₉₆	107
108	1.195 ₃₅	76.0	1038.9	976.3	62.6	0.1438	1.8306	283.3 ₇₇	0.003530 ₉₈	108
109	1.230 ₃₆	77.0	1038.2	975.5	62.7	0.1456	1.8261	275.6 ₇₅	0.003628 ₁₀₂	109
110	1.266 ₃₈	78.0	1037.5	974.7	62.8	0.1473	1.8217	268.1 ₇₂	0.003730 ₁₀₄	110
111	1.304 ₃₈	79.0	1036.8	973.9	62.9	0.1491	1.8173	260.9 ₇₁	0.003834 ₁₀₆	111
112	1.342 ₃₉	80.0	1036.1	973.1	63.0	0.1508	1.8129	253.8 ₆₈	0.003940 ₁₀₉	112
113	1.381 ₄₀	81.0	1035.4	972.3	63.1	0.1526	1.8085	247.0 ₆₆	0.004049 ₁₁₁	113
114	1.421 ₄₁	82.0	1034.7	971.5	63.2	0.1543	1.8042	240.4 ₆₄	0.004160 ₁₁₄	114
115	1.462 ₄₂	83.0	1034.0	970.7	63.3	0.1560	1.7998	234.0 ₆₂	0.004274 ₁₁₆	115
116	1.504 ₄₃	84.0	1033.3	969.9	63.4	0.1578	1.7955	227.8 ₆₀	0.004390 ₁₁₉	116
117	1.547 ₄₄	85.0	1032.6	969.1	63.5	0.1595	1.7912	221.8 ₅₈	0.004509 ₁₂₁	117
118	1.591 ₄₅	86.0	1031.9	968.3	63.6	0.1612	1.7868	216.0 ₅₇	0.004630 ₁₂₅	118
119	1.636 ₄₇	87.0	1031.2	967.5	63.7	0.1630	1.7825	210.3 ₅₅	0.004755 ₁₂₈	119
120	1.683 ₄₇	88.0	1030.5	966.7	63.8	0.1647	1.7782	204.8 ₅₃	0.004883 ₁₃₀	120
121	1.730 ₄₉	89.0	1029.8	966.0	63.8	0.1664	1.7740	199.5 ₅₂	0.005013 ₁₃₄	121
122	1.779 ₅₀	90.0	1029.2	965.3	63.9	0.1682	1.7699	194.3 ₅₀	0.005147 ₁₃₆	122
123	1.829 ₅₁	91.0	1028.5	964.5	64.0	0.1699	1.7657	189.3 ₄₈	0.005283 ₁₃₈	123
124	1.880 ₅₂	92.0	1027.8	963.7	64.1	0.1716	1.7615	184.5 ₄₇	0.005421 ₁₄₁	124
125	1.932 ₅₃	93.0	1027.1	962.9	64.2	0.1733	1.7573	179.8 ₄₆	0.005562 ₁₄₆	125
126	1.985 ₅₅	94.0	1026.4	962.1	64.3	0.1750	1.7531	175.2 ₄₅	0.005708 ₁₄₉	126
127	2.040 ₅₆	95.0	1025.7	961.3	64.4	0.1767	1.7489	170.7 ₄₃	0.005857 ₁₅₃	127
128	2.096 ₅₇	96.0	1025.0	960.5	64.5	0.1784	1.7447	166.4 ₄₁	0.006010 ₁₅₅	128
129	2.153 ₅₉	97.0	1024.3	959.7	64.6	0.1801	1.7405	162.3 ₄₂	0.006165 ₁₅₉	129
130	2.212 ₆₀	98.0	1023.6	958.9	64.7	0.1818	1.7364	158.1 ₃₉	0.006324 ₁₆₁	130
131	2.272 ₆₁	99.0	1022.9	958.1	64.8	0.1835	1.7323	154.2 ₃₈	0.006485 ₁₆₄	131
132	2.333 ₆₃	100.0	1022.2	957.3	64.9	0.1852	1.7281	150.4 ₃₇	0.006649 ₁₆₈	132
133	2.396 ₆₄	101.0	1021.5	956.5	65.0	0.1869	1.7240	146.7 ₃₆	0.006817 ₁₇₃	133
134	2.460 ₆₆	102.0	1020.8	955.7	65.1	0.1886	1.7200	143.1 ₃₆	0.006990 ₁₇₆	134
135	2.526 ₆₇	103.0	1020.1	954.9	65.2	0.1902	1.7159	139.5 ₃₄	0.007166 ₁₇₉	135
136	2.593 ₆₉	104.0	1019.4	954.1	65.3	0.1919	1.7118	136.1 ₃₃	0.007345 ₁₈₃	136
137	2.662 ₇₀	105.0	1018.7	953.3	65.4	0.1936	1.7078	132.8 ₃₂	0.007528 ₁₈₅	137
138	2.732 ₇₂	106.0	1018.0	952.5	65.5	0.1952	1.7037	129.6 ₃₁	0.007713 ₁₉₁	138
139	2.804 ₇₃	107.0	1017.3	951.7	65.6	0.1969	1.6997	126.5 ₃₁	0.007904 ₁₉₆	139
140	2.877 ₇₆	108.0	1016.6	950.9	65.7	0.1986	1.6957	123.4 ₃₀	0.008100 ₁₉₈	140
141	2.953 ₇₆	109.0	1015.9	950.1	65.8	0.2002	1.6918	120.4 ₂₉	0.008298 ₂₀₄	141
142	3.029 ₇₉	110.0	1015.3	949.4	65.9	0.2019	1.6879	117.5 ₂₈	0.008502 ₂₀₈	142
143	3.108 ₈₀	111.0	1014.6	948.6	66.0	0.2036	1.6840	114.7 ₂₇	0.008710 ₂₀₉	143
144	3.188 ₈₂	112.0	1013.9	947.8	66.1	0.2052	1.6800	112.0 ₂₆	0.008929 ₂₁₄	144
145	3.270 ₈₃	113.0	1013.2	947.0	66.2	0.2069	1.6761	109.4 ₂₆	0.009143 ₂₂₀	145

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	Density, Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
146	3.353 ⁸⁶	114.0	1012.5	946.2	66.3	0.2085	1.6722	106.8 ²⁵	0.009363 ²²⁵	146
147	3.439 ⁸⁷	115.0	1011.8	945.4	66.4	0.2102	1.6683	104.3 ²⁴	0.009588 ²²⁸	147
148	3.526 ⁸⁹	116.0	1011.1	944.6	66.5	0.2118	1.6644	101.9 ²⁴	0.009816 ²³⁴	148
149	3.615 ⁹¹	117.0	1010.4	943.8	66.6	0.2135	1.6605	99.54 ²³⁰	0.01005 ²³	149
150	3.706 ⁹²	118.0	1009.7	943.0	66.7	0.2151	1.6566	97.24 ²²⁵	0.01028 ²⁴	150
151	3.799 ⁹³	119.0	1009.0	942.2	66.8	0.2168	1.6527	94.99 ²¹⁸	0.01052 ²⁵	151
152	3.894 ⁹⁷	120.0	1008.3	941.5	66.8	0.2184	1.6488	92.81 ²¹³	0.01077 ²⁵	152
153	3.991 ⁹⁹	121.0	1007.6	940.7	66.9	0.2200	1.6450	90.68 ²⁰⁶	0.01102 ²⁶	153
154	4.090 ¹⁰¹	122.0	1006.9	939.9	67.0	0.2217	1.6412	88.62 ²⁰¹	0.01128 ²⁷	154
155	4.191 ¹⁰⁴	123.0	1006.2	939.1	67.1	0.2233	1.6374	86.61 ¹⁹⁵	0.01155 ²⁷	155
156	4.295 ¹⁰⁵	124.0	1005.5	938.3	67.2	0.2249	1.6336	84.66 ¹⁹²	0.01182 ²⁷	156
157	4.400 ¹⁰⁸	125.0	1004.8	937.5	67.3	0.2265	1.6298	82.74 ¹⁸⁶	0.01209 ²⁷	157
158	4.508 ¹⁰⁹	126.0	1004.1	936.7	67.4	0.2282	1.6261	80.88 ¹⁸¹	0.01236 ²⁸	158
159	4.617 ¹¹²	127.0	1003.4	935.9	67.5	0.2298	1.6224	79.07 ¹⁷⁶	0.01264 ²⁹	159
160	4.729 ¹¹⁵	128.0	1002.7	935.1	67.6	0.2314	1.6186	77.31 ¹⁷¹	0.01293 ³⁰	160
161	4.844 ¹¹⁶	129.0	1002.0	934.3	67.7	0.2330	1.6148	75.60 ¹⁶⁷	0.01323 ³⁰	161
162	4.960 ¹¹⁹	130.0	1001.4	933.6	67.8	0.2347	1.6111	73.93 ¹⁶³	0.01353 ³⁰	162
163	5.079 ¹²¹	131.0	1000.7	932.8	67.9	0.2363	1.6075	72.30 ¹⁵⁸	0.01383 ³¹	163
164	5.200 ¹²⁴	132.0	1000.0	932.0	68.0	0.2379	1.6038	70.72 ¹⁵⁵	0.01414 ³²	164
165	5.324 ¹²⁶	133.0	999.3	931.2	68.1	0.2395	1.6002	69.17 ¹⁵⁰	0.01446 ³²	165
166	5.450 ¹²⁹	134.0	998.6	930.4	68.2	0.2411	1.5965	67.67 ¹⁴⁶	0.01478 ³²	166
167	5.579 ¹³¹	135.0	997.9	929.6	68.3	0.2427	1.5928	66.21 ¹⁴⁴	0.01510 ³⁴	167
168	5.710 ¹³⁴	136.0	997.2	928.8	68.4	0.2443	1.5891	64.77 ¹⁴⁰	0.01544 ³⁴	168
169	5.844 ¹³⁷	137.0	996.5	928.0	68.5	0.2459	1.5855	63.37 ¹³⁷	0.01578 ³⁵	169
170	5.981 ¹³⁹	138.0	995.8	927.2	68.6	0.2475	1.5819	62.00 ¹³³	0.01613 ³⁵	170
171	6.120 ¹⁴²	139.0	995.1	926.4	68.7	0.2491	1.5783	60.67 ¹²⁸	0.01648 ³⁶	171
172	6.262 ¹⁴⁵	140.0	994.4	925.6	68.8	0.2506	1.5747	59.39 ¹²⁶	0.01684 ³⁶	172
173	6.407 ¹⁴⁷	141.0	993.7	924.8	68.9	0.2522	1.5711	58.13 ¹²³	0.01720 ³⁷	173
174	6.554 ¹⁵⁰	142.0	993.0	924.1	68.9	0.2538	1.5675	56.90 ¹²⁰	0.01757 ³⁸	174
175	6.704 ¹⁵⁴	143.0	992.3	923.3	69.0	0.2554	1.5639	55.70 ¹¹⁶	0.01795 ³⁹	175
176	6.858 ¹⁵⁶	144.0	991.6	922.5	69.1	0.2570	1.5604	54.54 ¹¹⁵	0.01834 ³⁹	176
177	7.014 ¹⁵⁹	145.0	990.9	921.7	69.2	0.2585	1.5569	53.39 ¹¹²	0.01873 ⁴⁰	177
178	7.173 ¹⁶²	146.0	990.2	920.9	69.3	0.2601	1.5533	52.27 ¹⁰⁸	0.01913 ⁴¹	178
179	7.335 ¹⁶⁵	147.0	989.5	920.1	69.4	0.2617	1.5498	51.19 ¹⁰⁵	0.01954 ⁴¹	179
180	7.500 ¹⁶⁸	148.0	988.8	919.3	69.5	0.2633	1.5463	50.14 ¹⁰⁴	0.01995 ⁴²	180
181	7.668 ¹⁷²	149.0	988.1	918.5	69.6	0.2648	1.5428	49.10 ¹⁰¹	0.02037 ⁴³	181
182	7.840 ¹⁷⁴	150.1	987.4	917.7	69.7	0.2664	1.5393	48.09 ⁹⁸	0.02080 ⁴³	182
183	8.014 ¹⁷⁸	151.1	986.7	916.9	69.8	0.2680	1.5358	47.11 ⁹⁶	0.02123 ⁴⁴	183
184	8.192 ¹⁸¹	152.1	986.0	916.1	69.9	0.2696	1.5323	46.15 ⁹⁵	0.02167 ⁴⁵	184
185	8.373 ¹⁸⁵	153.1	985.3	915.3	70.0	0.2711	1.5288	45.20 ⁹²	0.02212 ⁴⁶	185
186	8.558 ¹⁸⁸	154.1	984.6	914.5	70.1	0.2727	1.5254	44.28 ⁹⁰	0.02258 ⁴⁷	186

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	Density, Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apw</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
187	8.746 ¹⁹¹	155.1	983.9	913.8	70.1	0.2742	1.5219	43.38 ⁸⁷	0.02305 ⁴⁷	187
188	8.937 ¹⁹⁵	156.1	983.2	913.0	70.2	0.2758	1.5185	42.51 ⁸⁵	0.02352 ⁴⁸	188
189	9.132 ¹⁹⁸	157.1	982.5	912.2	70.3	0.2773	1.5150	41.66 ⁸³	0.02400 ⁴⁹	189
190	9.330 ²⁰²	158.1	981.8	911.4	70.4	0.2789	1.5116	40.83 ⁸²	0.02449 ⁵⁰	190
191	9.532 ²⁰⁶	159.1	981.1	910.6	70.5	0.2805	1.5082	40.01 ⁷⁹	0.02499 ⁵¹	191
192	9.738 ²⁰⁹	160.1	980.4	909.8	70.6	0.2820	1.5048	39.22 ⁷⁸	0.02550 ⁵¹	192
193	9.947 ²¹³	161.1	979.7	909.0	70.7	0.2835	1.5015	38.44 ⁷⁶	0.02601 ⁵³	193
194	10.16 ²²	162.1	979.0	908.2	70.8	0.2851	1.4981	37.68 ⁷⁴	0.02654 ⁵⁴	194
195	10.38 ²²	163.1	978.3	907.4	70.9	0.2866	1.4947	36.94 ⁷³	0.02708 ⁵⁴	195
196	10.60 ²²	164.1	977.6	906.7	70.9	0.2882	1.4913	36.21 ⁷¹	0.02762 ⁵⁵	196
197	10.82 ²³	165.1	976.9	905.9	71.0	0.2897	1.4880	35.50 ⁶⁹	0.02817 ⁵⁶	197
198	11.05 ²³	166.2	976.1	905.0	71.1	0.2912	1.4846	34.81 ⁶⁷	0.02873 ⁵⁶	198
199	11.28 ²⁴	167.2	975.4	904.2	71.2	0.2928	1.4813	34.14 ⁶⁶	0.02929 ⁵⁸	199
200	11.52 ²⁴	168.2	974.7	903.4	71.3	0.2943	1.4779	33.48 ⁶⁴	0.02987 ⁵⁹	200
201	11.76 ²⁴	169.2	974.0	902.6	71.4	0.2958	1.4746	32.84 ⁶⁴	0.03046 ⁶⁰	201
202	12.00 ²⁵	170.2	973.4	901.9	71.5	0.2973	1.4714	32.20 ⁶¹	0.03106 ⁶⁰	202
203	12.25 ²⁶	171.2	972.7	901.2	71.5	0.2989	1.4682	31.59 ⁶⁰	0.03166 ⁶¹	203
204	12.51 ²⁶	172.2	972.0	900.4	71.6	0.3004	1.4650	30.99 ⁵⁹	0.03227 ⁶²	204
205	12.77 ²⁶	173.2	971.3	899.6	71.7	0.3019	1.4617	30.40 ⁵⁷	0.03289 ⁶³	205
206	13.03 ²⁶	174.2	970.6	898.8	71.8	0.3034	1.4585	29.83 ⁵⁷	0.03352 ⁶⁶	206
207	13.29 ²⁷	175.2	969.9	898.0	71.9	0.3049	1.4552	29.26 ⁵⁶	0.03418 ⁶⁶	207
208	13.56 ²⁸	176.2	969.2	897.2	72.0	0.3064	1.4520	28.70 ⁵⁴	0.03484 ⁶⁷	208
209	13.84 ²⁸	177.2	968.5	896.5	72.0	0.3079	1.4488	28.16 ⁵³	0.03551 ⁶⁸	209
210	14.12 ²⁹	178.3	967.7	895.6	72.1	0.3095	1.4455	27.63 ⁵²	0.03619 ⁷⁰	210
211	14.41 ²⁹	179.3	967.0	894.8	72.2	0.3110	1.4422	27.11 ⁴⁵	0.03689 ⁶²	211
212	14.70 ²⁹	180.3	966.3	893.9	72.4	0.3125	1.4390	26.66 ⁴⁵	0.03751 ⁶⁶	212
213	14.99 ³⁰	181.3	965.6	893.0	72.6	0.3140	1.4358	26.21 ⁴⁸	0.03817 ⁷⁰	213
214	15.29 ³⁰	182.3	964.9	892.2	72.7	0.3155	1.4326	25.73 ⁴⁸	0.03887 ⁷³	214
215	15.59 ³¹	183.3	964.2	891.4	72.8	0.3170	1.4295	25.25 ⁴⁶	0.03960 ⁷⁴	215
216	15.90 ³¹	184.3	963.5	890.6	72.9	0.3185	1.4263	24.79 ⁴⁵	0.04034 ⁷⁴	216
217	16.21 ³²	185.3	962.8	889.9	72.9	0.3200	1.4232	24.34 ⁴⁴	0.04108 ⁷⁶	217
218	16.53 ³³	186.3	962.1	889.1	73.0	0.3215	1.4200	23.90 ⁴⁴	0.04184 ⁷⁹	218
219	16.86 ³³	187.4	961.3	888.2	73.1	0.3230	1.4168	23.46 ⁴³	0.04263 ⁷⁹	219
220	17.19 ³³	188.4	960.6	887.5	73.1	0.3244	1.4137	23.03 ⁴²	0.04342 ⁸¹	220
221	17.52 ³⁴	189.4	959.9	886.7	73.2	0.3259	1.4106	22.61 ⁴¹	0.04423 ⁸²	221
222	17.86 ³⁵	190.4	959.3	886.0	73.3	0.3274	1.4075	22.20 ³⁹	0.04505 ⁸²	222
223	18.21 ³⁵	191.4	958.6	885.2	73.4	0.3289	1.4045	21.81 ³⁹	0.04587 ⁸³	223
224	18.55 ³⁵	192.4	957.9	884.4	73.5	0.3304	1.4014	21.42 ³⁸	0.04676 ⁸⁴	224
225	18.91 ³⁷	193.4	957.2	883.7	73.5	0.3319	1.3984	21.04 ³⁷	0.04754 ⁸⁶	225
226	19.28 ³⁷	194.4	956.5	882.9	73.6	0.3333	1.3954	20.67 ³⁸	0.04840 ⁸⁹	226
227	19.65 ³⁷	195.4	955.8	882.1	73.7	0.3348	1.3923	20.29 ³⁶	0.04929 ⁸⁹	227

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY.	Temperature, Degrees Fahr.
									Weight, in Pounds, of One Cubic Foot.	
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
228	20.02 ₃₈	196.5	955.0	881.2	73.8	0.3363	1.3892	19.93 ₃₅	0.05018 ₈₉	228
229	20.40 ₃₈	197.5	954.3	880.5	73.8	0.3378	1.3861	19.58 ₃₄	0.05107 ₉₀	229
230	20.78 ₃₉	198.5	953.6	879.7	73.9	0.3392	1.3831	19.24 ₃₃	0.05197 ₉₂	230
231	21.17 ₄₀	199.5	952.9	878.9	74.0	0.3407	1.3800	18.91 ₃₃	0.05289 ₉₄	231
232	21.57 ₄₁	200.5	952.2	878.2	74.0	0.3422	1.3770	18.58 ₃₂	0.05383 ₉₅	232
233	21.98 ₄₁	201.5	951.5	877.4	74.1	0.3436	1.3740	18.26 ₃₂	0.05479 ₉₇	233
234	22.39 ₄₁	202.5	950.8	876.6	74.2	0.3451	1.3710	17.94 ₃₁	0.05575 ₉₉	234
235	22.80 ₄₁	203.6	950.0	875.7	74.3	0.3466	1.3679	17.63 ₃₀	0.05677 ₉₉	235
236	23.23 ₄₃	204.6	949.3	874.9	74.4	0.3480	1.3649	17.33 ₃₀	0.05773 ₁₀₁	236
237	23.66 ₄₃	205.6	948.6	874.2	74.4	0.3495	1.3619	17.03 ₂₉	0.05874 ₁₀₂	237
238	24.09 ₄₄	206.6	947.9	873.4	74.5	0.3509	1.3590	16.74 ₂₉	0.05976 ₁₀₃	238
239	24.53 ₄₅	207.6	947.2	872.6	74.6	0.3524	1.3560	16.45 ₂₈	0.06079 ₁₀₅	239
240	24.98 ₄₆	208.6	946.5	871.9	74.6	0.3538	1.3531	16.17 ₂₇	0.06184 ₁₀₆	240
241	25.44 ₄₆	209.6	945.8	871.1	74.7	0.3553	1.3502	15.90 ₂₇	0.06290 ₁₀₇	241
242	25.90 ₄₇	210.7	945.1	870.3	74.8	0.3567	1.3473	15.63 ₂₆	0.06397 ₁₀₉	242
243	26.37 ₄₈	211.7	944.4	869.5	74.9	0.3582	1.3444	15.37 ₂₆	0.06506 ₁₁₁	243
244	26.85 ₄₈	212.7	943.7	868.7	75.0	0.3596	1.3415	15.11 ₂₅	0.06617 ₁₁₂	244
245	27.33 ₄₉	213.7	943.0	868.0	75.0	0.3611	1.3386	14.86 ₂₅	0.06729 ₁₁₄	245
246	27.82 ₅₀	214.7	942.3	867.2	75.1	0.3625	1.3357	14.61 ₂₄	0.06843 ₁₁₅	246
247	28.32 ₅₀	215.7	941.6	866.4	75.2	0.3639	1.3328	14.37 ₂₃	0.06958 ₁₁₆	247
248	28.82 ₅₂	216.7	940.9	865.6	75.3	0.3654	1.3299	14.14 ₂₃	0.07074 ₁₁₈	248
249	29.34 ₅₂	217.7	940.2	864.8	75.4	0.3668	1.3270	13.91 ₂₃	0.07192 ₁₂₀	249
250	29.86 ₅₂	218.8	939.4	864.0	75.4	0.3683	1.3241	13.68 ₂₂	0.07312 ₁₂₁	250
251	30.38 ₅₄	219.8	938.7	863.2	75.5	0.3697	1.3212	13.46 ₂₂	0.07433 ₁₂₂	251
252	30.92 ₅₄	220.8	938.0	862.4	75.6	0.3711	1.3183	13.24 ₂₂	0.07555 ₁₂₆	252
253	31.46 ₅₅	221.8	937.3	861.6	75.7	0.3726	1.3154	13.02 ₂₁	0.07680 ₁₂₈	253
254	32.01 ₅₆	222.8	936.6	860.9	75.7	0.3740	1.3126	12.81 ₂₁	0.07808 ₁₂₈	254
255	32.57 ₅₇	223.8	935.9	860.1	75.8	0.3754	1.3098	12.60 ₂₁	0.07936 ₁₂₈	255
256	33.14 ₅₇	224.9	935.1	859.2	75.9	0.3768	1.3070	12.39 ₂₀	0.08064 ₁₃₂	256
257	33.71 ₅₈	225.9	934.4	858.4	76.0	0.3782	1.3042	12.19 ₁₉	0.08196 ₁₃₃	257
258	34.29 ₅₉	226.9	933.7	857.7	76.0	0.3797	1.3014	12.00 ₁₉	0.08329 ₁₃₅	258
259	34.88 ₆₀	227.9	933.0	856.9	76.1	0.3811	1.2986	11.81 ₁₉	0.08464 ₁₃₇	259
260	35.48 ₆₁	229.0	932.2	856.0	76.2	0.3825	1.2957	11.62 ₁₈	0.08601 ₁₃₈	260
261	36.09 ₆₂	230.0	931.5	855.2	76.3	0.3839	1.2929	11.44 ₁₈	0.08739 ₁₄₀	261
262	36.71 ₆₂	231.0	930.9	854.5	76.4	0.3853	1.2902	11.26 ₁₈	0.08879 ₁₄₂	262
263	37.33 ₆₃	232.0	930.2	853.8	76.4	0.3867	1.2875	11.08 ₁₇	0.09021 ₁₄₃	263
264	37.96 ₆₄	233.0	929.5	853.0	76.5	0.3881	1.2848	10.91 ₁₇	0.09164 ₁₄₅	264
265	38.60 ₆₅	234.0	928.8	852.2	76.6	0.3895	1.2820	10.74 ₁₇	0.09309 ₁₄₆	265
266	39.25 ₆₆	235.0	928.1	851.4	76.7	0.3909	1.2792	10.57 ₁₆	0.09455 ₁₅₀	266
267	39.91 ₆₇	236.1	927.3	850.6	76.7	0.3923	1.2764	10.41 ₁₆	0.09604 ₁₅₁	267
268	40.58 ₆₈	237.1	926.6	849.8	76.8	0.3937	1.2737	10.25 ₁₆	0.09755 ₁₅₂	268

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>r</i> / <i>T</i>	<i>s</i>	<i>γ</i>	<i>t</i>
269	41.26 ⁶⁹	238.1	925.9	849.0	76.9	0.3951	1.2710	10.09	0.09907 ¹⁵³	269
270	41.95 ⁶⁹	239.1	925.2	848.2	77.0	0.3965	1.2683	9.93 ¹⁵²	0.1006 ¹⁶	270
271	42.64 ⁷¹	240.2	924.4	847.4	77.0	0.3979	1.2655	9.785 ¹⁴⁹	0.1022 ¹⁶	271
272	43.35 ⁷¹	241.2	923.7	846.6	77.1	0.3993	1.2628	9.636 ¹⁴⁷	0.1038 ¹⁶	272
273	44.06 ⁷²	242.2	923.0	845.8	77.2	0.4007	1.2601	9.489 ¹⁴⁴	0.1054 ¹⁶	273
274	44.78 ⁷⁴	243.2	922.3	845.0	77.3	0.4021	1.2574	9.345 ¹⁴¹	0.1070 ¹⁶	274
275	45.52 ⁷⁴	244.2	921.6	844.2	77.4	0.4035	1.2547	9.204 ¹³⁸	0.1086 ¹⁷	275
276	46.26 ⁷⁴	245.3	920.8	843.4	77.4	0.4049	1.2520	9.066 ¹³⁶	0.1103 ¹⁷	276
277	47.01 ⁷⁵	246.3	920.1	842.6	77.5	0.4063	1.2493	8.930 ¹³⁴	0.1120 ¹⁷	277
278	47.77 ⁷⁸	247.3	919.4	841.8	77.6	0.4077	1.2466	8.796 ¹³²	0.1137 ¹⁷	278
279	48.55 ⁷⁸	248.3	918.7	841.0	77.7	0.4091	1.2440	8.664 ¹²⁸	0.1154 ¹⁷	279
280	49.33 ⁷⁹	249.4	917.9	840.2	77.7	0.4104	1.2413	8.536 ¹²⁶	0.1171 ¹⁸	280
281	50.12 ⁸⁰	250.4	917.2	839.4	77.8	0.4118	1.2387	8.410 ¹²⁵	0.1189 ¹⁸	281
282	50.92 ⁸²	251.4	916.6	838.7	77.9	0.4132	1.2361	8.285 ¹²³	0.1207 ¹⁸	282
283	51.74 ⁸²	252.4	915.9	837.9	78.0	0.4146	1.2335	8.162 ¹¹⁹	0.1225 ¹⁸	283
284	52.56 ⁸³	253.4	915.2	837.1	78.1	0.4160	1.2309	8.043 ¹¹⁷	0.1243 ¹⁸	284
285	53.39 ⁸⁵	254.5	914.4	836.3	78.1	0.4173	1.2283	7.926 ¹¹⁶	0.1261 ¹⁹	285
286	54.24 ⁸⁵	255.5	913.7	835.5	78.2	0.4187	1.2257	7.810 ¹¹³	0.1280 ¹⁹	286
287	55.09 ⁸⁷	256.5	913.0	834.7	78.3	0.4201	1.2231	7.697 ¹¹¹	0.1299 ¹⁹	287
288	55.96 ⁸⁷	257.5	912.3	833.9	78.4	0.4215	1.2205	7.586 ¹¹¹	0.1318 ¹⁹	288
289	56.83 ⁸⁷	258.6	911.5	833.1	78.4	0.4228	1.2179	7.475 ¹⁰⁸	0.1337 ²⁰	289
290	57.72 ⁹⁰	259.6	910.8	832.3	78.5	0.4242	1.2153	7.367 ¹⁰⁵	0.1357 ²⁰	290
291	58.63 ⁹¹	260.6	910.1	831.5	78.6	0.4255	1.2127	7.262 ¹⁰³	0.1377 ²⁰	291
292	59.53 ⁹¹	261.6	909.4	830.7	78.7	0.4269	1.2101	7.159 ¹⁰³	0.1397 ²⁰	292
293	60.45 ⁹³	262.7	908.6	829.9	78.7	0.4283	1.2075	7.056 ¹⁰⁰	0.1417 ²⁰	293
294	61.38 ⁹⁵	263.7	907.9	829.1	78.8	0.4297	1.2049	6.956 ⁹⁹	0.1437 ²¹	294
295	62.33 ⁹⁵	264.7	907.2	828.3	78.9	0.4310	1.2023	6.857 ⁹⁷	0.1458 ²¹	295
296	63.28 ⁹⁷	265.7	906.5	827.5	79.0	0.4324	1.1998	6.760 ⁹⁵	0.1479 ²¹	296
297	64.25 ⁹⁸	266.7	905.8	826.7	79.1	0.4337	1.1972	6.665 ⁹⁴	0.1500 ²¹	297
298	65.23 ⁹⁹	267.8	905.0	825.9	79.1	0.4351	1.1947	6.571 ⁹²	0.1521 ²²	298
299	66.22 ¹⁰⁰	268.8	904.3	825.1	79.2	0.4364	1.1922	6.479 ⁹¹	0.1543 ²²	299
300	67.22 ¹⁰²	269.8	903.6	824.3	79.3	0.4378	1.1897	6.388 ⁸⁸	0.1565 ²²	300
301	68.24 ¹⁰³	270.8	902.9	823.5	79.4	0.4391	1.1872	6.300 ⁸⁷	0.1587 ²²	301
302	69.27 ¹⁰³	271.9	902.2	822.8	79.4	0.4405	1.1847	6.213 ⁸⁷	0.1609 ²³	302
303	70.30 ¹⁰⁶	272.9	901.5	822.0	79.5	0.4418	1.1822	6.126 ⁸⁴	0.1632 ²³	303
304	71.36 ¹⁰⁶	273.9	900.8	821.2	79.6	0.4432	1.1799	6.042 ⁸³	0.1655 ²³	304
305	72.42 ¹⁰⁸	274.9	900.1	820.4	79.7	0.4445	1.1774	5.959 ⁸¹	0.1678 ²³	305
306	73.50 ¹⁰⁹	276.0	899.3	819.5	79.8	0.4458	1.1749	5.878 ⁸⁰	0.1701 ²⁴	306
307	74.59 ¹¹⁰	277.0	898.6	818.8	79.8	0.4472	1.1724	5.798 ⁸⁰	0.1725 ²⁴	307
308	75.69 ¹¹¹	278.0	897.9	818.0	79.9	0.4485	1.1699	5.718 ⁷⁸	0.1749 ²⁴	308
309	76.80 ¹¹³	279.1	897.1	817.1	80.0	0.4499	1.1674	5.640 ⁷⁶	0.1773 ²⁴	309

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	Density.	Temperature, Degrees Fahr.
									Weight, in Pounds, of One Cubic Foot.	
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
310	77.93 ¹¹⁴	280.1	896.4	816.4	80.0	0.4512	1.1649	5.564 ⁷⁴	0.1797 ²⁴	310
311	79.07 ¹¹⁶	281.1	895.7	815.6	80.1	0.4525	1.1625	5.490 ⁷⁴	0.1821 ²⁵	311
312	80.23 ¹¹⁶	282.1	895.0	814.8	80.2	0.4538	1.1600	5.416 ⁷³	0.1846 ²⁵	312
313	81.39 ¹¹⁸	283.2	894.2	813.9	80.3	0.4552	1.1576	5.343 ⁷¹	0.1871 ²⁶	313
314	82.57 ¹²⁰	284.2	893.5	813.2	80.3	0.4565	1.1551	5.272 ⁷¹	0.1897 ²⁶	314
315	83.77 ¹²¹	285.2	892.8	812.4	80.4	0.4578	1.1527	5.201 ⁶⁹	0.1923 ²⁶	315
316	84.98 ¹²²	286.2	892.1	811.6	80.5	0.4592	1.1503	5.132 ⁶⁸	0.1949 ²⁶	316
317	86.20 ¹²³	287.3	891.3	810.8	80.5	0.4605	1.1479	5.064 ⁶⁷	0.1975 ²⁶	317
318	87.43 ¹²⁵	288.3	890.6	810.0	80.6	0.4618	1.1455	4.997 ⁶⁶	0.2001 ²⁷	318
319	88.68 ¹²⁷	289.3	889.9	809.2	80.7	0.4631	1.1431	4.931 ⁶⁴	0.2028 ²⁷	319
320	89.95 ¹²⁸	290.4	889.1	808.3	80.8	0.4644	1.1407	4.867 ⁶⁴	0.2055 ²⁷	320
321	91.23 ¹²⁹	291.4	888.4	807.6	80.8	0.4658	1.1383	4.803 ⁶²	0.2082 ²⁷	321
322	92.52 ¹³⁰	292.4	887.8	806.9	80.9	0.4671	1.1360	4.741 ⁶²	0.2109 ²⁸	322
323	93.82 ¹³²	293.4	887.1	806.1	81.0	0.4684	1.1336	4.679 ⁶¹	0.2137 ²⁸	323
324	95.14 ¹³⁴	294.5	886.3	805.3	81.0	0.4697	1.1312	4.618 ⁶⁰	0.2165 ²⁹	324
325	96.48 ¹³⁵	295.5	885.6	804.5	81.1	0.4710	1.1289	4.558 ⁵⁹	0.2194 ²⁹	325
326	97.83 ¹³⁷	296.5	884.9	803.7	81.2	0.4723	1.1265	4.499 ⁵⁷	0.2223 ²⁹	326
327	99.20 ¹⁴	297.5	884.1	802.9	81.2	0.4736	1.1241	4.442 ⁵⁷	0.2252 ²⁹	327
328	100.6 ¹⁴	298.6	883.4	802.1	81.3	0.4749	1.1218	4.385 ⁵⁶	0.2281 ²⁹	328
329	102.0 ¹⁴	299.6	882.7	801.3	81.4	0.4762	1.1194	4.329 ⁵⁶	0.2310 ³⁰	329
330	103.4 ¹⁴	300.6	882.0	800.6	81.4	0.4775	1.1171	4.273 ⁵⁴	0.2340 ³⁰	330
331	104.8 ¹⁴	301.7	881.2	799.7	81.5	0.4789	1.1147	4.219 ⁵⁴	0.2370 ³⁰	331
332	106.2 ¹⁵	302.7	880.5	798.9	81.6	0.4802	1.1124	4.165 ⁵⁴	0.2400 ³⁰	332
333	107.7 ¹⁵	303.7	879.8	798.2	81.6	0.4815	1.1101	4.113 ⁵²	0.2431 ³¹	333
334	109.2 ¹⁵	304.8	879.0	797.3	81.7	0.4828	1.1078	4.061 ⁵¹	0.2462 ³¹	334
335	110.7 ¹⁵	305.8	878.3	796.5	81.8	0.4841	1.1055	4.010 ⁵⁰	0.2493 ³²	335
336	112.2 ¹⁵	306.8	877.6	795.8	81.8	0.4854	1.1032	3.960 ⁵⁰	0.2525 ³²	336
337	113.7 ¹⁵	307.9	876.8	794.9	81.9	0.4867	1.1009	3.910 ⁴⁹	0.2557 ³³	337
338	115.2 ¹⁶	308.9	876.1	794.1	82.0	0.4880	1.0986	3.861 ⁴⁸	0.2590 ³³	338
339	116.8 ¹⁵	309.9	875.4	793.4	82.0	0.4892	1.0963	3.813 ⁴⁷	0.2623 ³³	339
340	118.3 ¹⁶	310.9	874.7	792.6	82.1	0.4905	1.0940	3.766 ⁴⁷	0.2656 ³³	340
341	119.9 ¹⁶	312.0	873.9	791.7	82.2	0.4918	1.0918	3.719 ⁴⁵	0.2689 ³⁴	341
342	121.5 ¹⁶	313.0	873.3	791.1	82.2	0.4931	1.0896	3.674 ⁴⁵	0.2722 ³⁴	342
343	123.1 ¹⁷	314.0	872.6	790.3	82.3	0.4944	1.0873	3.629 ⁴⁵	0.2756 ³⁴	343
344	124.8 ¹⁶	315.1	871.8	789.4	82.4	0.4957	1.0850	3.584 ⁴⁴	0.2790 ³⁴	344
345	126.4 ¹⁷	316.1	871.1	788.7	82.4	0.4970	1.0828	3.540 ⁴³	0.2825 ³⁵	345
346	128.1 ¹⁷	317.1	870.4	787.9	82.5	0.4982	1.0806	3.497 ⁴²	0.2860 ³⁵	346
347	129.8 ¹⁷	318.2	869.6	787.0	82.6	0.4995	1.0783	3.455 ⁴²	0.2895 ³⁵	347
348	131.5 ¹⁷	319.2	868.9	786.3	82.6	0.5008	1.0761	3.413 ⁴²	0.2930 ³⁶	348
349	133.2 ¹⁷	320.2	868.2	785.5	82.7	0.5021	1.0738	3.371 ⁴¹	0.2966 ³⁶	349
350	134.9 ¹⁸	321.3	867.4	784.7	82.7	0.5034	1.0716	3.330 ⁴⁰	0.3002 ³⁷	350

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apw</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>t</i>
351	136.7 ₁₈	322.3	866.7	783.9	82.8	0.5047	1.0693	3.290 ₃₉	0.3039 ₃₇	351
352	138.5 ₁₈	323.3	866.0	783.1	82.9	0.5059	1.0671	3.251 ₃₉	0.3076 ₃₇	352
353	140.3 ₁₈	324.4	865.2	782.3	82.9	0.5072	1.0649	3.212 ₃₈	0.3113 ₃₈	353
354	142.1 ₁₈	325.4	864.5	781.5	83.0	0.5085	1.0627	3.174 ₃₈	0.3151 ₃₈	354
355	143.9 ₁₈	326.4	863.8	780.8	83.0	0.5097	1.0605	3.136 ₃₈	0.3189 ₃₉	355
356	145.7 ₁₉	327.5	863.0	779.9	83.1	0.5110	1.0583	3.098 ₃₇	0.3228 ₃₉	356
357	147.6 ₁₉	328.5	862.3	779.1	83.2	0.5123	1.0561	3.061 ₃₆	0.3267 ₃₉	357
358	149.5 ₁₉	329.5	861.6	778.4	83.2	0.5135	1.0540	3.025 ₃₆	0.3306 ₃₉	358
359	151.4 ₁₉	330.6	860.8	777.5	83.3	0.5148	1.0518	2.989 ₃₅	0.3345 ₄₀	359
360	153.3 ₂₀	331.6	860.1	776.8	83.3	0.5161	1.0496	2.954 ₃₅	0.3385 ₄₁	360
361	155.3 ₁₉	332.6	859.4	776.0	83.4	0.5173	1.0475	2.919 ₃₄	0.3426 ₄₁	361
362	157.2 ₂₀	333.7	858.7	775.3	83.4	0.5186	1.0453	2.885 ₃₄	0.3467 ₄₁	362
363	159.2 ₂₀	334.7	858.0	774.5	83.5	0.5199	1.0432	2.851 ₃₃	0.3508 ₄₁	363
364	161.2 ₂₀	335.7	857.3	773.7	83.6	0.5211	1.0410	2.818 ₃₃	0.3549 ₄₂	364
365	163.2 ₂₀	336.8	856.5	772.9	83.6	0.5224	1.0389	2.785 ₃₂	0.3591 ₄₂	365
366	165.2 ₂₁	337.8	855.8	772.1	83.7	0.5236	1.0367	2.753 ₃₂	0.3633 ₄₂	366
367	167.3 ₂₁	338.8	855.1	771.4	83.7	0.5249	1.0346	2.721 ₃₁	0.3675 ₄₃	367
368	169.4 ₂₁	339.9	854.3	770.6	83.7	0.5261	1.0324	2.690 ₃₁	0.3718 ₄₃	368
369	171.5 ₂₁	340.0	853.6	769.8	83.8	0.5274	1.0303	2.659 ₃₁	0.3761 ₄₄	369
370	173.6 ₂₁	341.9	852.9	769.0	83.9	0.5286	1.0281	2.628 ₃₀	0.3805 ₄₄	370
371	175.7 ₂₂	343.0	852.1	768.2	83.9	0.5299	1.0260	2.598 ₃₀	0.3849 ₄₅	371
372	177.9 ₂₂	344.0	851.4	767.4	84.0	0.5311	1.0239	2.568 ₂₉	0.3894 ₄₅	372
373	180.1 ₂₂	345.0	850.7	766.7	84.0	0.5324	1.0217	2.539 ₂₉	0.3939 ₄₅	373
374	182.3 ₂₂	346.1	849.9	765.8	84.1	0.5336	1.0196	2.510 ₂₉	0.3984 ₄₆	374
375	184.5 ₂₂	347.1	849.2	765.1	84.1	0.5349	1.0175	2.481 ₂₈	0.4030 ₄₇	375
376	186.7 ₂₃	348.2	848.4	764.2	84.2	0.5361	1.0154	2.453 ₂₈	0.4077 ₄₇	376
377	189.0 ₂₃	349.2	847.7	763.5	84.2	0.5374	1.0133	2.425 ₂₇	0.4124 ₄₇	377
378	191.3 ₂₃	350.2	847.0	762.7	84.3	0.5386	1.0113	2.398 ₂₇	0.4171 ₄₇	378
379	193.6 ₂₃	351.3	846.2	761.9	84.3	0.5398	1.0092	2.371 ₂₇	0.4218 ₄₈	379
380	195.9 ₂₃	352.3	845.5	761.2	84.3	0.5411	1.0072	2.344 ₂₆	0.4266 ₄₈	380
381	198.2 ₂₄	353.3	844.8	760.4	84.4	0.5423	1.0050	2.318 ₂₆	0.4314 ₄₈	381
382	200.6 ₂₄	354.4	844.1	759.7	84.4	0.5435	1.0030	2.292 ₂₅	0.4362 ₄₉	382
383	203.0 ₂₄	355.4	843.4	758.9	84.5	0.5448	1.0010	2.267 ₂₅	0.4411 ₄₉	383
384	205.4 ₂₅	356.5	842.6	758.1	84.5	0.5460	0.9990	2.242 ₂₅	0.4460 ₅₁	384
385	207.9 ₂₄	357.5	841.9	757.3	84.6	0.5473	0.9969	2.217 ₂₅	0.4511 ₅₁	385
386	210.3 ₂₅	358.5	841.2	756.6	84.6	0.5485	0.9948	2.192 ₂₄	0.4562 ₅₂	386
387	212.8 ₂₅	359.6	840.4	755.7	84.7	0.5497	0.9928	2.168 ₂₄	0.4614 ₅₂	387
388	215.3 ₂₅	360.6	839.7	755.0	84.7	0.5509	0.9907	2.144 ₂₄	0.4666 ₅₂	388
389	217.8 ₂₆	361.7	838.9	754.2	84.7	0.5522	0.9887	2.120 ₂₃	0.4718 ₅₂	389
390	220.4 ₂₆	362.7	838.2	753.4	84.8	0.5534	0.9867	2.097 ₂₃	0.4770 ₅₃	390
391	223.0 ₂₆	363.7	837.5	752.7	84.8	0.5546	0.9847	2.074 ₂₃	0.4823 ₅₄	391

SATURATED STEAM—TABLE I.

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight in Pounds of One Cubic Foot.	Temperature, Degrees Fahr.
<i>t</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>z</i>
392	225.6 ₂₆	364.8	836.7	751.8	84.9	0.5558	0.9826	2.051 ₂₃	0.4877 ₅₄	392
393	228.2 ₂₆	365.8	836.0	751.1	84.9	0.5571	0.9806	2.028 ₂₂	0.4931 ₅₅	393
394	230.8 ₂₇	366.9	835.2	750.3	84.9	0.5583	0.9786	2.006 ₂₂	0.4986 ₅₆	394
395	233.5 ₂₇	367.9	834.5	749.5	85.0	0.5595	0.9766	1.984 ₂₂	0.5040 ₅₆	395
396	236.2 ₂₇	368.9	833.8	748.8	85.0	0.5607	0.9746	1.962 ₂₁	0.5096 ₅₆	396
397	238.9 ₂₇	370.0	833.0	748.0	85.0	0.5619	0.9726	1.941 ₂₁	0.5152 ₅₇	397
398	241.6 ₂₈	371.0	832.3	747.2	85.1	0.5632	0.9706	1.920 ₂₁	0.5209 ₅₇	398
399	244.4 ₂₈	372.0	831.6	746.5	85.1	0.5644	0.9686	1.899 ₂₁	0.5266 ₅₈	399
400	247.2 ₂₈	373.1	830.8	745.7	85.1	0.5656	0.9666	1.878 ₂₀	0.5324 ₅₈	400
401	250.0 ₂₉	374.1	830.1	745.0	85.1	0.5668	0.9647	1.858 ₂₀	0.5382 ₅₉	401
402	252.9 ₂₈	375.2	829.4	744.2	85.2	0.5680	0.9627	1.838 ₂₀	0.5441 ₅₉	402
403	255.7 ₂₉	376.2	828.7	743.5	85.2	0.5692	0.9608	1.818 ₂₀	0.5500 ₆₀	403
404	258.6 ₂₉	377.3	827.9	742.7	85.2	0.5704	0.9588	1.798 ₁₉	0.5560 ₆₁	404
405	261.5 ₃₀	378.3	827.2	741.9	85.3	0.5716	0.9569	1.779 ₁₉	0.5621 ₆₁	405
406	264.5 ₃₀	379.4	826.4	741.1	85.3	0.5728	0.9549	1.760 ₁₉	0.5682 ₆₂	406
407	267.5 ₃₀	380.4	825.7	740.4	85.3	0.5741	0.9529	1.741 ₁₉	0.5744 ₆₂	407
408	270.5 ₃₀	381.4	825.0	739.7	85.3	0.5753	0.9509	1.722 ₁₈	0.5806 ₆₃	408
409	273.5 ₃₀	382.5	824.2	738.8	85.4	0.5765	0.9490	1.704 ₁₈	0.5869 ₆₃	409
410	276.5 ₃₁	383.5	823.5	738.1	85.4	0.5777	0.9470	1.686 ₁₈	0.5931 ₆₄	410
411	279.6 ₃₁	384.6	822.7	737.3	85.4	0.5789	0.9451	1.668 ₁₈	0.5995 ₆₄	411
412	282.7 ₃₂	385.6	822.0	736.6	85.4	0.5801	0.9431	1.650 ₁₇	0.6059 ₆₅	412
413	285.9 ₃₁	386.7	821.2	735.8	85.4	0.5813	0.9412	1.633 ₁₇	0.6124 ₆₅	413
414	289.0 ₃₂	387.7	820.5	735.0	85.5	0.5825	0.9393	1.616 ₁₇	0.6189 ₆₆	414
415	292.2 ₃₂	388.7	819.8	734.3	85.5	0.5837	0.9374	1.599 ₁₇	0.6255 ₆₆	415
416	295.4 ₃₃	389.8	819.0	733.5	85.5	0.5849	0.9355	1.582 ₁₇	0.6321 ₆₇	416
417	298.7 ₃₂	390.8	818.3	732.8	85.5	0.5861	0.9336	1.565 ₁₇	0.6388 ₆₈	417
418	301.9 ₃₃	391.9	817.5	732.0	85.5	0.5873	0.9317	1.548 ₁₆	0.6456 ₆₉	418
419	305.2 ₃₄	392.9	816.8	731.3	85.5	0.5885	0.9298	1.532 ₁₆	0.6525 ₇₁	419
420	308.6 ₃₃	394.0	816.0	730.5	85.5	0.5896	0.9279	1.516 ₁₆	0.6596 ₇₁	420
421	311.9 ₃₄	395.0	815.3	729.8	85.5	0.5908	0.9260	1.500 ₁₆	0.6667 ₇₂	421
422	315.3 ₃₄	396.1	814.6	729.0	85.6	0.5920	0.9241	1.484 ₁₆	0.6739 ₇₃	422
423	318.7 ₃₅	397.1	813.9	728.3	85.6	0.5932	0.9222	1.468 ₁₆	0.6812 ₇₄	423
424	322.2 ₃₅	398.2	813.1	727.5	85.6	0.5944	0.9203	1.452 ₁₆	0.6886 ₇₅	424
425	325.7 ₃₅	399.2	812.4	726.8	85.6	0.5955	0.9184	1.436 ₁₅	0.6961 ₇₅	425
426	329.2 ₃₅	400.3	811.6	726.0	85.6	0.5967	0.9165	1.421 ₁₅	0.7036 ₇₆	426
427	332.7 ₃₆	401.3	810.9	725.3	85.6	0.5979	0.9147	1.406 ₁₄	0.7112 ₇₆	427
428	336.3	402.3	810.2	724.6	85.6	0.5991	0.9129	1.392	0.7188	428

TABLE II.
SATURATED STEAM.

ENGLISH UNITS.

Pressure, Pounds per Square Inch.	Temperature, Degrees Fahr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>p</i>
1	102.0	70.0	1043.1	981.1	62.0	0.1332	1.8574	335.3	0.00298	1
2	126.3 ²⁴³	94.3	1026.2	961.9	64.3	0.1756	1.7519	174.0 ^{161.3}	0.00575 ²⁷⁷	2
3	141.6 ¹⁵³	109.6	1015.5	949.6	65.9	0.2012	1.6895	118.6 ^{55.4}	0.00843 ²⁶⁸	3
	115							28.0	0.00843 ²⁶¹	
4	153.1 ⁹²	121.1	1007.5	940.6	66.9	0.2201	1.6447	90.60 ^{17.22}	0.01104 ²⁵⁹	4
5	162.3 ⁷⁸	130.3	1001.2	933.4	67.8	0.2351	1.6100	73.38 ^{11.56}	0.01363 ²⁵⁵	5
6	170.1 ⁶⁸	138.1	995.7	927.1	68.6	0.2478	1.5815	61.82 ^{8.32}	0.01618 ²⁵¹	6
7	176.9 ⁶⁰	144.9	991.0	921.8	69.2	0.2584	1.5571	53.50 ^{6.31}	0.01869 ²⁵⁰	7
8	182.9 ⁵⁴	151.0	986.7	916.9	69.8	0.2679	1.5359	47.19 ^{4.96}	0.02119 ²⁴⁹	8
9	188.3 ⁴⁹	156.4	983.0	912.8	70.2	0.2763	1.5174	42.23 ^{3.98}	0.02368 ²⁴⁶	9
10	193.2	161.4	979.5	908.8	70.7	0.2839	1.5006	38.25 ^{3.29}	0.02614 ²⁴⁶	10
11	197.8 ⁴⁶	166.0	976.3	905.2	71.1	0.2909	1.4853	34.96 ^{2.75}	0.02860 ²⁴⁵	11
12	202.0 ³⁹	170.2	973.4	901.9	71.5	0.2973	1.4714	32.21 ^{2.32}	0.03105 ²⁴³	12
13	205.9 ³⁷	174.1	970.6	898.8	71.8	0.3032	1.4586	29.89 ^{2.03}	0.03348 ²⁴²	13
14	209.6 ³⁴	177.8	968.0	895.9	72.1	0.3088	1.4467	27.86 ^{1.66}	0.03590 ²⁴²	14
15	213.0 ³³	181.3	965.6	893.0	72.6	0.3141	1.4358	26.20 ^{1.55}	0.03817 ²²⁷	15
									240	
16	216.3 ³¹	184.6	963.3	890.4	72.9	0.3190	1.4254	24.65 ^{1.38}	0.04057 ²⁴⁰	16
17	219.4 ³⁰	187.8	961.1	888.0	73.1	0.3236	1.4155	23.27 ^{1.22}	0.04297 ²³⁸	17
18	222.4 ²⁸	190.8	959.0	885.7	73.3	0.3280	1.4062	22.05 ^{1.10}	0.04535 ²³⁸	18
19	225.2	193.7	957.0	883.5	73.5	0.3322	1.3975	20.95 ^{1.00}	0.04773 ²³⁸	19
20	227.9 ²⁷	196.5	955.0	881.3	73.7	0.3362	1.3892	19.95 ^{0.90}	0.05011 ²³⁷	20
21	230.6 ²⁵	199.1	953.2	879.3	73.9	0.3400	1.3813	19.05 ^{0.81}	0.05248 ²³⁶	21
22	233.1 ²⁴	201.6	951.4	877.3	74.1	0.3437	1.3737	18.24 ^{0.75}	0.05484 ²³⁵	22
23	235.5 ²³	204.1	949.6	875.3	74.3	0.3472	1.3665	17.49 ^{0.70}	0.05719 ²³⁵	23
24	237.8 ²²	206.4	948.0	873.5	74.5	0.3506	1.3596	16.79 ^{0.63}	0.05954 ²³⁴	24
25	240.0	208.7	946.4	871.8	74.6	0.3539	1.3529	16.16 ^{0.58}	0.06188 ²³²	25
26	242.2 ²¹	210.9	944.9	870.1	74.8	0.3571	1.3465	15.58 ^{0.55}	0.06420 ²³³	26
27	244.3 ²¹	213.1	943.4	868.4	75.0	0.3601	1.3403	15.03 ^{0.51}	0.06653 ²³⁴	27
28	246.4	215.1	942.0	866.9	75.1	0.3630	1.3343	14.52 ^{0.46}	0.06887 ²³⁰	28
29	248.3 ²⁰	217.1	940.6	865.3	75.3	0.3659	1.3286	14.06 ^{0.44}	0.07117 ²³⁰	29
30	250.3 ¹⁹	219.1	939.2	863.8	75.4	0.3687	1.3232	13.62 ^{0.41}	0.07347 ²²⁹	30
31	252.2	221.0	937.9	862.3	75.6	0.3714	1.3179	13.21 ^{0.40}	0.07576 ²³⁰	31
32	254.0 ¹⁸	222.8	936.6	860.9	75.7	0.3739	1.3127	12.81 ^{0.37}	0.07806 ²³¹	32

Pressure, Pounds per Square Inch.	Temperature, Degrees Fahr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apw</i>	<i>o</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>
33	255.8 ¹⁷	224.6	935.3	859.4	75.9	0.3764	1.3075	12.44 ³⁴	0.08037 ²³¹
34	257.5 ¹⁷	226.4	934.0	858.0	76.0	0.3790	1.3026	12.09 ³²	0.08268 ²²⁸
35	259.2 ¹⁷	228.1	932.9	856.7	76.1	0.3814	1.2979	11.77 ³⁰	0.08496 ²²⁶
36	260.9 ¹⁶	229.8	931.7	855.4	76.3	0.3837	1.2932	11.47 ²⁹	0.08722 ²²⁶
37	262.5 ¹⁶	231.5	930.5	854.1	76.4	0.3859	1.2887	11.18 ²⁸	0.08948 ²²⁶
38	264.1 ¹⁵	233.1	929.4	852.9	76.5	0.3881	1.2844	10.90 ²⁶	0.09174 ²²⁴
39	265.6 ¹⁵	234.6	928.3	851.7	76.6	0.3903	1.2801	10.64 ²⁵	0.09398 ²³⁷
40	267.1 ¹⁵	236.2	927.2	850.5	76.8	0.3925	1.2759	10.39 ²⁴	0.09625 ²²⁷
41	268.6 ¹⁵	237.7	926.2	849.3	76.9	0.3946	1.2718	10.15 ²²	0.09852 ²²
42	270.1 ¹⁴	239.2	925.1	848.1	77.0	0.3967	1.2679	9.925 ²¹⁶	0.1007 ²³
43	271.5 ¹⁴	240.7	924.1	847.0	77.1	0.3987	1.2641	9.709 ²⁰⁷	0.1030 ²²
44	272.9 ¹⁴	242.1	923.1	845.9	77.2	0.4006	1.2604	9.502 ¹⁹⁸	0.1052 ²³
45	274.3 ¹⁴	243.5	922.1	844.8	77.3	0.4025	1.2566	9.304 ¹⁹⁰	0.1075 ²²
46	275.7 ¹³	244.9	921.1	843.7	77.4	0.4044	1.2529	9.114 ¹⁸³	0.1097 ²³
47	277.0 ¹³	246.3	920.1	842.6	77.5	0.4062	1.2493	8.931 ¹⁷⁵	0.1120 ²²
48	278.3 ¹³	247.6	919.2	841.6	77.6	0.4080	1.2458	8.756 ¹⁶⁸	0.1142 ²²
49	279.6 ¹²	248.9	918.3	840.6	77.7	0.4098	1.2424	8.588 ¹⁵⁹	0.1164 ²²
50	280.8 ¹²	250.2	917.4	839.6	77.8	0.4115	1.2391	8.429 ¹⁵⁶	0.1186 ²³
51	282.1 ¹²	251.5	916.5	838.6	77.9	0.4133	1.2359	8.273 ¹⁵⁰	0.1209 ²²
52	283.3 ¹²	252.7	915.7	837.7	78.0	0.4150	1.2327	8.123 ¹⁴²	0.1231 ²²
53	284.5 ¹²	253.9	914.8	836.7	78.1	0.4167	1.2295	7.981 ¹³⁹	0.1253 ²²
54	285.7 ¹²	255.2	913.9	835.7	78.2	0.4183	1.2263	7.842 ¹³³	0.1275 ²²
55	286.9 ¹²	256.4	913.0	834.7	78.3	0.4199	1.2232	7.709 ¹²⁹	0.1297 ²²
56	288.1 ¹¹	257.6	912.2	833.8	78.4	0.4215	1.2201	7.580 ¹²⁶	0.1319 ²³
57	289.2 ¹¹	258.8	911.3	832.9	78.5	0.4231	1.2172	7.454 ¹²⁰	0.1342 ²²
58	290.3 ¹¹	259.9	910.6	832.1	78.5	0.4246	1.2144	7.334 ¹¹⁵	0.1364 ²¹
59	291.4 ¹¹	261.0	909.8	831.2	78.6	0.4261	1.2116	7.219 ¹¹²	0.1385 ²²
60	292.5 ¹¹	262.1	909.1	830.3	78.7	0.4276	1.2088	7.107 ¹¹⁰	0.1407 ²²
61	293.6 ¹¹	263.2	908.3	829.4	78.8	0.4291	1.2060	6.997 ¹⁰⁵	0.1429 ²²
62	294.7 ¹⁰	264.3	907.5	828.6	78.9	0.4305	1.2033	6.892 ¹⁰²	0.1451 ²²
63	295.7 ¹⁰	265.4	906.7	827.8	79.0	0.4319	1.2006	6.790 ¹⁰⁰	0.1473 ²²
64	296.7 ¹⁰	266.5	905.9	827.0	79.0	0.4333	1.1980	6.690 ⁹⁸	0.1495 ²²
65	297.8 ¹⁰	267.5	905.2	826.2	79.1	0.4347	1.1953	6.592 ⁹³	0.1517 ²²
66	298.8 ¹⁰	268.6	904.4	825.3	79.2	0.4361	1.1927	6.499 ⁹⁰	0.1539 ²¹
67	299.8 ¹⁰	269.6	903.7	824.5	79.3	0.4375	1.1902	6.409 ⁸⁷	0.1560 ²²
68	300.8 ⁹	270.6	903.0	823.7	79.3	0.4388	1.1877	6.322 ⁸⁶	0.1582 ²²
69	301.7 ¹⁰	271.6	902.3	823.0	79.4	0.4401	1.1853	6.236 ⁸⁵	0.1604 ²²
70	302.7 ¹⁰	272.6	901.7	822.3	79.5	0.4414	1.1829	6.151 ⁸¹	0.1626 ²¹
71	303.7 ¹⁰	273.6	901.0	821.5	79.6	0.4427	1.1806	6.070 ⁷⁹	0.1647 ²²
72	304.6 ⁹	274.5	900.4	820.8	79.6	0.4440	1.1783	5.991 ⁷⁶	0.1669 ²²
73	305.5 ¹⁰	275.5	899.7	820.0	79.7	0.4452	1.1761	5.915 ⁷⁴	0.1691 ²¹

SATURATED STEAM—TABLE II.

Pressure, Pounds per Square Inch.	Temperature, Degrees Fabr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY Weights in Pounds, of One Cubic Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>r</i> <i>H</i>	<i>s</i>	<i>γ</i>
74	306.5 ₉	276.5	898.9	819.1	79.8	0.4464	1.1736	5.841 ₇₂	0.171 ₇
75	307.4 ₉	277.4	898.3	818.6	79.8	0.4477	1.1714	5.769 ₇₂	0.173 ₇
76	308.3 ₉	278.3	897.7	817.9	79.9	0.4489	1.1691	5.697 ₇₀	0.175 ₇
77	309.2 ₉	279.2	897.0	817.0	80.0	0.4501	1.1669	5.627 ₆₇	0.177 ₇
78	310.1 ₈	280.1	896.4	816.4	80.0	0.4513	1.1646	5.560 ₆₆	0.179 ₇
79	310.9 ₉	281.0	895.8	815.7	80.1	0.4525	1.1626	5.494 ₆₃	0.182 ₇
80	311.8 ₉	281.9	895.1	815.0	80.2	0.4536	1.1605	5.431 ₆₃	0.184 ₇
81	312.7 ₈	282.8	894.5	814.3	80.2	0.4548	1.1583	5.368 ₆₁	0.186 ₇
82	313.5 ₉	283.7	893.9	813.6	80.3	0.4559	1.1563	5.307 ₆₁	0.188 ₇
83	314.4 ₈	284.6	893.2	812.9	80.4	0.4570	1.1541	5.246 ₅₈	0.190 ₇
84	315.2 ₈	285.4	892.7	812.3	80.4	0.4581	1.1522	5.188 ₅₇	0.192 ₇
85	316.0 ₈	286.2	892.1	811.6	80.5	0.4592	1.1503	5.131 ₅₆	0.194 ₇
86	316.8 ₈	287.1	891.5	811.0	80.5	0.4603	1.1484	5.075 ₅₅	0.197 ₇
87	317.6 ₈	287.9	890.9	810.3	80.6	0.4614	1.1465	5.020 ₅₃	0.199 ₇
88	318.4 ₈	288.8	890.3	809.7	80.6	0.4624	1.1445	4.967 ₅₂	0.201 ₇
89	319.2 ₈	289.5	889.8	809.0	80.7	0.4634	1.1426	4.915 ₅₁	0.203 ₇
90	320.0 ₈	290.3	889.3	808.4	80.8	0.4644	1.1407	4.864 ₅₀	0.205 ₇
91	320.8 ₈	291.1	888.7	807.8	80.8	0.4655	1.1388	4.814 ₄₈	0.207 ₇
92	321.6 ₈	291.9	888.1	807.2	80.9	0.4665	1.1369	4.766 ₄₈	0.209 ₇
93	322.4 ₇	292.7	887.6	806.6	80.9	0.4675	1.1350	4.718 ₄₇	0.211 ₇
94	323.1 ₈	293.5	887.0	806.0	81.0	0.4685	1.1333	4.671 ₄₆	0.213 ₇
95	323.9 ₇	294.3	886.4	805.4	81.0	0.4695	1.1314	4.625 ₄₅	0.215 ₇
96	324.0 ₈	295.1	885.9	804.8	81.1	0.4704	1.1298	4.580 ₄₄	0.217 ₇
97	325.4 ₇	295.9	885.3	804.2	81.1	0.4714	1.1279	4.536 ₄₄	0.220 ₇
98	326.1 ₃	296.6	884.8	803.6	81.2	0.4723	1.1262	4.492 ₄₂	0.222 ₇
99	326.9 ₇	297.3	884.3	803.0	81.2	0.4733	1.1243	4.450 ₄₁	0.224 ₇
100	327.6 ₇	298.1	883.8	802.4	81.3	0.4743	1.1227	4.409 ₄₁	0.226 ₇
101	328.3 ₇	298.8	883.3	801.9	81.3	0.4753	1.1211	4.368 ₄₀	0.228 ₇
102	329.0 ₇	299.6	882.7	801.3	81.4	0.4763	1.1194	4.328 ₄₀	0.230 ₇
103	329.7 ₇	300.3	882.2	800.8	81.4	0.4773	1.1178	4.288 ₃₈	0.232 ₇
104	330.4 ₇	301.1	881.6	800.2	81.5	0.4782	1.1161	4.250 ₃₈	0.234 ₇
105	331.1 ₇	301.8	881.1	799.6	81.5	0.4791	1.1145	4.212 ₃₇	0.236 ₇
106	331.8 ₇	302.5	880.6	799.1	81.6	0.4800	1.1129	4.175 ₃₇	0.238 ₇
107	332.5 ₇	303.2	880.2	798.6	81.6	0.4809	1.1112	4.138 ₃₆	0.240 ₇
108	333.2 ₇	303.9	879.7	798.0	81.7	0.4818	1.1096	4.102 ₃₅	0.242 ₇
109	333.9 ₇	304.6	879.2	797.5	81.7	0.4827	1.1080	4.067 ₃₅	0.244 ₇
110	334.6 ₆	305.3	878.7	796.9	81.8	0.4836	1.1064	4.032 ₃₄	0.246 ₇
111	335.2 ₇	306.0	878.2	796.4	81.8	0.4844	1.1050	3.998 ₃₃	0.248 ₇
112	335.9 ₇	306.7	877.7	795.9	81.8	0.4852	1.1034	3.965 ₃₃	0.250 ₇
113	336.6 ₆	307.4	877.2	795.3	81.9	0.4861	1.1018	3.932 ₃₂	0.252 ₇
114	337.2 ₇	308.1	876.7	794.8	81.9	0.4869	1.1004	3.900 ₃₂	0.254 ₇

Pressure, Pounds per Square Inch.	Temperature, Degrees Fahr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>p</i>
115	337.9 ₆	308.8	876.2	794.3	82.0	0.4878	1.0988	3.868 ₃₁	0.2585 ₂₁	115
116	338.5 ₆	309.5	875.7	793.8	82.0	0.4886	1.0974	3.837 ₃₀	0.2606 ₂₁	116
117	339.1 ₇	310.1	875.3	793.3	82.0	0.4894	1.0961	3.807 ₃₁	0.2627 ₂₂	117
118	339.8 ₆	310.8	874.8	792.8	82.1	0.4902	1.0946	3.776 ₃₀	0.2649 ₂₁	118
119	340.4 ₆	311.4	874.4	792.3	82.1	0.4911	1.0931	3.746 ₂₉	0.2670 ₂₁	119
120	341.0 ₇	312.0	874.0	791.8	82.2	0.4919	1.0918	3.717 ₂₈	0.2692 ₂₀	120
121	341.7 ₆	312.7	873.5	791.3	82.2	0.4927	1.0903	3.689 ₂₈	0.2711 ₂₁	121
122	342.3 ₆	313.3	873.0	790.7	82.3	0.4935	1.0889	3.661 ₂₈	0.2732 ₂₁	122
123	342.9 ₆	313.9	872.6	790.2	82.3	0.4943	1.0875	3.633 ₂₈	0.2753 ₂₁	123
124	343.5 ₆	314.5	872.2	789.8	82.3	0.4951	1.0861	3.605 ₂₇	0.2774 ₂₁	124
125	344.1 ₆	315.1	871.8	789.3	82.4	0.4959	1.0848	3.578 ₂₆	0.2795 ₂₀	125
126	344.7 ₆	315.8	871.3	788.8	82.4	0.4967	1.0835	3.552 ₂₆	0.2815 ₂₁	126
127	345.3 ₆	316.4	870.9	788.3	82.5	0.4975	1.0821	3.526 ₂₆	0.2836 ₂₁	127
128	345.9 ₆	317.0	870.4	787.9	82.5	0.4981	1.0808	3.500 ₂₅	0.2857 ₂₁	128
129	346.5 ₆	317.6	870.0	787.5	82.5	0.4989	1.0794	3.475 ₂₅	0.2878 ₂₁	129
130	347.1 ₆	318.3	869.5	787.0	82.6	0.4997	1.0781	3.450 ₂₅	0.2899 ₂₁	130
131	347.7 ₆	318.9	869.1	786.5	82.6	0.5004	1.0768	3.425 ₂₄	0.2920 ₂₁	131
132	348.3 ₆	319.5	868.7	786.1	82.6	0.5012	1.0754	3.401 ₂₄	0.2941 ₂₁	132
133	348.9 ₆	320.1	868.3	785.6	82.7	0.5019	1.0740	3.377 ₂₄	0.2962 ₂₀	133
134	349.5 ₅	320.7	867.8	785.1	82.7	0.5027	1.0727	3.353 ₂₄	0.2982 ₂₁	134
135	350.0 ₆	321.3	867.4	784.7	82.7	0.5034	1.0715	3.329 ₂₃	0.3003 ₂₁	135
136	350.6 ₆	321.9	867.0	784.2	82.8	0.5042	1.0702	3.306 ₂₃	0.3024 ₂₁	136
137	351.2 ₅	322.4	866.6	783.8	82.8	0.5049	1.0689	3.283 ₂₂	0.3045 ₂₁	137
138	351.7 ₆	323.0	866.2	783.4	82.8	0.5055	1.0677	3.261 ₂₁	0.3066 ₂₀	138
139	352.3 ₆	323.6	865.8	782.9	82.9	0.5062	1.0664	3.240 ₂₂	0.3086 ₂₁	139
140	352.9 ₅	324.2	865.3	782.4	82.9	0.5070	1.0651	3.218 ₂₁	0.3107 ₂₁	140
141	353.4 ₆	324.8	864.9	781.9	82.9	0.5077	1.0640	3.197 ₂₁	0.3128 ₂₁	141
142	354.0 ₅	325.4	864.5	781.5	83.0	0.5085	1.0627	3.176 ₂₁	0.3149 ₂₁	142
143	354.5 ₆	326.0	864.1	781.1	83.0	0.5092	1.0616	3.155 ₂₁	0.3170 ₂₁	143
144	355.1 ₅	326.5	863.7	780.7	83.0	0.5098	1.0603	3.134 ₂₁	0.3191 ₂₁	144
145	355.6 ₅	327.0	863.4	780.3	83.1	0.5105	1.0592	3.113 ₂₀	0.3212 ₂₁	145
146	356.1 ₆	327.6	863.0	779.9	83.1	0.5112	1.0581	3.093 ₁₉	0.3233 ₂₁	146
147	356.7 ₅	328.1	862.6	779.5	83.1	0.5119	1.0568	3.074 ₂₀	0.3253 ₂₀	147
148	357.2 ₅	328.7	862.2	779.0	83.2	0.5125	1.0557	3.054 ₁₉	0.3274 ₂₀	148
149	357.7 ₆	329.2	861.8	778.6	83.2	0.5131	1.0546	3.035 ₁₉	0.3294 ₂₁	149
150	358.3 ₅	329.8	861.4	778.2	83.2	0.5138	1.0534	3.016 ₁₉	0.3315 ₂₁	150
151	358.8 ₅	330.4	861.0	777.8	83.3	0.5145	1.0522	2.997 ₁₉	0.3336 ₂₁	151
152	359.3 ₅	330.9	860.6	777.4	83.3	0.5152	1.0511	2.978 ₁₈	0.3357 ₂₁	152
153	359.8 ₅	331.4	860.3	777.0	83.3	0.5159	1.0500	2.960 ₁₈	0.3378 ₂₁	153
154	360.3 ₆	331.9	859.9	776.6	83.4	0.5166	1.0489	2.942 ₁₈	0.3399 ₂₁	154
155	360.9 ₅	332.4	859.6	776.2	83.4	0.5172	1.0477	2.924 ₁₈	0.3420 ₂₁	155

Inch.	Temperature, Degrees Fabr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY.	
									Weight, in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>t</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>p</i>	
361.4 ₅	333.0	859.2	775.8	83.4	0.5178	1.0466	2.906 ₁₇	0.3441 ₂₀	156	
361.6 ₅	333.5	858.8	775.3	83.4	0.5184	1.0456	2.889 ₁₇	0.3461 ₂₀	157	
362.4 ₅	334.1	858.4	774.9	83.5	0.5191	1.0445	2.872 ₁₇	0.3482 ₂₁	158	
362.9 ₅	334.6	858.1	774.6	83.5	0.5198	1.0434	2.855 ₁₇	0.3503 ₂₁	159	
363.4 ₅	335.1	857.7	774.2	83.5	0.5204	1.0423	2.838 ₁₇	0.3524 ₂₁	160	
363.9 ₅	335.6	857.4	773.9	83.5	0.5210	1.0412	2.821 ₁₇	0.3545 ₂₁	161	
364.4 ₅	336.1	857.0	773.4	83.6	0.5216	1.0402	2.804 ₁₆	0.3566 ₂₁	162	
364.9 ₅	336.7	856.6	773.0	83.6	0.5222	1.0391	2.788 ₁₆	0.3587 ₂₁	163	
365.4 ₅	337.2	856.2	772.6	83.6	0.5229	1.0381	2.772 ₁₆	0.3608 ₂₁	164	
365.9 ₅	337.7	855.9	772.2	83.7	0.5235	1.0370	2.756 ₁₅	0.3629 ₂₀	165	
366.4 ₅	338.2	855.5	771.8	83.7	0.5241	1.0359	2.741 ₁₅	0.3649 ₂₀	166	
366.9 ₄	338.7	855.2	771.5	83.7	0.5247	1.0348	2.726 ₁₅	0.3669 ₂₀	167	
367.3 ₅	339.2	854.8	771.1	83.7	0.5253	1.0338	2.711 ₁₅	0.3689 ₂₀	168	
367.8 ₅	339.7	854.5	770.7	83.8	0.5259	1.0328	2.696 ₁₅	0.3709 ₂₀	169	
368.3 ₅	340.2	854.1	770.3	83.8	0.5265	1.0318	2.681 ₁₅	0.3730 ₂₁	170	
368.8 ₄	340.7	853.7	770.0	83.8	0.5271	1.0308	2.666 ₁₄	0.3751 ₂₀	171	
369.2 ₄	341.2	853.4	769.6	83.8	0.5277	1.0298	2.652 ₁₄	0.3771 ₂₀	172	
369.7 ₅	341.6	853.1	769.2	83.9	0.5283	1.0288	2.637 ₁₄	0.3792 ₂₁	173	
370.2 ₅	342.1	852.7	768.8	83.9	0.5289	1.0277	2.623 ₁₅	0.3813 ₂₁	174	
370.7 ₅	342.6	852.4	768.4	83.9	0.5295	1.0266	2.608 ₁₄	0.3834 ₂₁	175	
371.1 ₅	343.1	852.0	768.0	83.9	0.5301	1.0257	2.594 ₁₄	0.3855 ₂₁	176	
371.6 ₅	343.6	851.7	767.7	83.9	0.5306	1.0247	2.580 ₁₄	0.3876 ₂₁	177	
372.1 ₅	344.0	851.4	767.4	84.0	0.5312	1.0237	2.566 ₁₃	0.3897 ₂₁	178	
372.5 ₅	344.5	851.1	767.1	84.0	0.5317	1.0227	2.553 ₁₃	0.3918 ₂₀	179	
373.0 ₄	344.9	850.8	766.8	84.0	0.5323	1.0217	2.540 ₁₃	0.3938 ₂₀	180	
373.4 ₄	345.4	850.5	766.4	84.0	0.5329	1.0207	2.527 ₁₄	0.3958 ₂₁	181	
373.9 ₄	345.9	850.1	766.0	84.1	0.5335	1.0197	2.513 ₁₃	0.3979 ₂₁	182	
374.3 ₅	346.4	849.7	765.6	84.1	0.5340	1.0188	2.500 ₁₃	0.4000 ₂₁	183	
374.8 ₅	346.9	849.3	765.2	84.1	0.5346	1.0179	2.487 ₁₂	0.4021 ₂₀	184	
375.2 ₅	347.4	849.0	764.9	84.1	0.5351	1.0170	2.475 ₁₃	0.4041 ₂₁	185	
375.7 ₄	347.8	848.7	764.6	84.1	0.5357	1.0161	2.462 ₁₂	0.4062 ₂₀	186	
376.1 ₄	348.3	848.3	764.2	84.2	0.5363	1.0152	2.450 ₁₃	0.4082 ₂₁	187	
376.6 ₄	348.8	848.0	763.8	84.2	0.5368	1.0142	2.437 ₁₂	0.4103 ₂₁	188	
377.0 ₄	349.2	847.7	763.5	84.2	0.5374	1.0133	2.425 ₁₂	0.4124 ₂₁	189	
377.4 ₅	349.7	847.4	763.2	84.2	0.5379	1.0124	2.413 ₁₂	0.4145 ₂₁	190	
377.9 ₄	350.1	847.1	762.8	84.3	0.5385	1.0115	2.401 ₁₁	0.4166 ₂₀	191	
378.3 ₅	350.6	846.7	762.4	84.3	0.5390	1.0106	2.390 ₁₂	0.4186 ₂₀	192	
378.8 ₄	351.0	846.4	762.1	84.3	0.5395	1.0097	2.378 ₁₂	0.4206 ₂₁	193	
379.2 ₄	351.5	846.1	761.8	84.3	0.5400	1.0088	2.366 ₁₁	0.4227 ₂₁	194	
379.6 ₄	351.9	845.8	761.5	84.3	0.5406	1.0080	2.355 ₁₂	0.4248 ₂₁	195	
380.0 ₅	352.3	845.5	761.2	84.3	0.5412	1.0071	2.343 ₁₂	0.4269 ₂₀	196	

Pressure, Pounds per Square Inch.	Temperature, Degrees Fahr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vapora- tion.	Specific Volume.	DENSITY. Weight, in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>T/r</i>	<i>s</i>	<i>γ</i>	<i>p</i>
197	380.5	352.8	845.2	760*8	84.4	0.5417	1.0062	2.331 ₁₂	0.4289 ₂₀	197
198	380.9	353.2	844.9	760.5	84.4	0.5422	1.0053	2.319 ₁₀	0.4309 ₂₀	198
199	381.3	353.6	844.6	760.2	84.4	0.5427	1.0044	2.309 ₁₀	0.4329 ₂₀	199
200	381.7	354.1	844.3	759.9	84.4	0.5432	1.0035	2.299 ₁₀	0.4349 ₂₀	200
201	382.2	354.5	844.0	759.5	84.5	0.5437	1.0026	2.289 ₁₀	0.4369 ₂₀	201
202	382.6	354.9	843.7	759.2	84.5	0.5443	1.0018	2.279 ₁₁	0.4389 ₂₁	202
203	383.0	355.4	843.4	758.9	84.5	0.5448	1.0010	2.268 ₁₁	0.4410 ₂₁	203
204	383.4	355.8	843.1	758.6	84.5	0.5453	1.0002	2.257 ₁₁	0.4431 ₂₀	204
205	383.8	356.3	842.7	758.2	84.5	0.5458	.9994	2.246 ₁₀	0.4451 ₂₁	205
206	384.2	356.8	842.4	757.8	84.6	0.5463	.9986	2.236 ₁₀	0.4472 ₂₁	206
207	384.6	357.2	842.1	757.5	84.6	0.5469	.9977	2.226 ₁₀	0.4493 ₂₁	207
208	385.1	357.6	841.8	757.2	84.6	0.5474	.9968	2.216 ₁₁	0.4514 ₂₀	208
209	385.5	358.0	841.5	756.9	84.6	0.5479	.9959	2.205 ₁₀	0.4534 ₂₁	209
210	385.9	358.4	841.2	756.6	84.6	0.5484	.9950	2.195 ₁₀	0.4555 ₂₁	210
211	386.3	358.8	841.0	756.3	84.6	0.5489	.9942	2.185 ₉	0.4576 ₂₁	211
212	386.7	359.2	840.7	756.0	84.7	0.5493	.9934	2.176 ₉	0.4597 ₂₀	212
213	387.1	359.6	840.4	755.7	84.7	0.5497	.9926	2.167 ₉	0.4617 ₂₁	213
214	387.5	360.1	840.0	755.3	84.7	0.5502	.9918	2.157 ₁₀	0.4638 ₂₁	214
215	387.9	360.5	839.7	755.0	84.7	0.5507	.9909	2.147 ₁₀	0.4659 ₂₁	215
216	388.3	360.9	839.5	754.8	84.7	0.5512	.9901	2.137 ₁₀	0.4680 ₂₁	216
217	388.7	361.3	839.2	754.5	84.7	0.5518	.9893	2.128 ₉	0.4701 ₂₀	217
218	389.1	361.7	838.9	754.2	84.7	0.5523	.9885	2.119 ₉	0.4721 ₂₀	218
219	389.5	362.1	838.6	753.8	84.8	0.5528	.9878	2.110 ₉	0.4741 ₂₁	219
220	389.8	362.5	838.3	753.5	84.8	0.5532	.9871	2.101 ₉	0.4762 ₂₀	220
221	390.2	362.9	838.0	753.2	84.8	0.5536	.9863	2.092 ₉	0.4782 ₂₁	221
222	390.6	363.3	837.8	753.0	84.8	0.5541	.9855	2.083 ₉	0.4803 ₂₁	222
223	391.0	363.7	837.5	752.7	84.8	0.5546	.9847	2.074 ₉	0.4824 ₂₁	223
224	391.4	364.1	837.2	752.4	84.8	0.5551	.9839	2.065 ₉	0.4845 ₂₁	224
225	391.8	364.5	836.9	752.0	84.8	0.5556	.9830	2.056 ₉	0.4866 ₂₀	225
226	392.2	364.9	836.7	751.7	84.9	0.5560	.9822	2.047 ₉	0.4886 ₂₁	226
227	392.6	365.3	836.4	751.5	84.9	0.5565	.9814	2.038 ₈	0.4907 ₂₁	227
228	392.9	365.7	836.1	751.2	84.9	0.5570	.9807	2.030 ₈	0.4928 ₂₁	228
229	393.3	366.1	835.8	750.9	84.9	0.5574	.9800	2.021 ₈	0.4949 ₂₀	229
230	393.7	366.6	835.4	750.5	84.9	0.5579	.9792	2.013 ₈	0.4969 ₂₁	230
231	394.1	367.0	835.1	750.2	84.9	0.5584	.9784	2.005 ₈	0.4990 ₂₁	231
232	394.5	367.4	834.8	749.9	84.9	0.5588	.9776	1.996 ₈	0.5011 ₂₀	232
233	394.8	367.8	834.6	749.6	85.0	0.5593	.9769	1.988 ₈	0.5031 ₂₀	233
234	395.2	368.1	834.4	749.4	85.0	0.5597	.9762	1.980 ₈	0.5051 ₂₀	234
235	395.6	368.4	834.2	749.2	85.0	0.5602	.9755	1.972 ₈	0.5071 ₂₁	235
236	395.9	368.8	833.9	748.9	85.0	0.5606	.9748	1.964 ₈	0.5092 ₂₀	236
237	396.3	369.2	833.6	748.6	85.0	0.5611	.9740	1.956 ₈	0.5112 ₂₁	237

Pressure, Pounds per Square Inch.	Temperature, Degrees Fahr.	Heat of the Liquid.	Heat of Vap- orization.	Heat Equiva- lent of Inter- nal Work.	Heat Equiva- lent of Ex- ternal Work.	Entropy of the Liquid.	Entropy of Vaporiza- tion.	Specific Volume.	DENSITY. Weight in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>p</i>
238	396.7	369.7	833.3	748.3	85.0	0.5615	.9732	1.948 ₈	0.5133 ₂₁	238
239	397.0	370.1	833.0	748.0	85.0	0.5620	.9725	1.940 ₈	0.5154 ₂₁	239
240	397.4	370.4	832.7	747.7	85.0	0.5624	.9718	1.932 ₇	0.5175 ₂₀	240
241	397.8	370.7	832.6	747.5	85.1	0.5629	.9711	1.925 ₈	0.5195 ₂₀	241
242	398.1	371.1	831.3	747.2	85.1	0.5633	.9604	1.917 ₇	0.5215 ₂₁	242
243	398.5	371.5	832.0	746.9	85.1	0.5638	.9696	1.910 ₈	0.5236 ₂₁	243
244	398.9	371.9	831.7	746.6	85.1	0.5642	.9688	1.902 ₇	0.5257 ₂₁	244
245	399.2	372.2	831.5	746.4	85.1	0.5646	.9681	1.895 ₈	0.5278 ₂₁	245
246	399.6	372.6	831.2	746.1	85.1	0.5651	.9674	1.887 ₈	0.5299 ₂₁	246
247	399.9	373.0	830.9	745.8	85.1	0.5655	.9668	1.879 ₇	0.5320 ₂₁	247
248	400.3	373.4	830.6	745.5	85.1	0.5659	.9661	1.872 ₇	0.5341 ₂₀	248
249	400.6	373.7	830.4	745.3	85.1	0.5664	.9654	1.865 ₇	0.5361 ₂₀	249
250	401.0	374.1	830.1	745.0	85.1	0.5668	.9647	1.858 ₇	0.5381 ₂₀	250
251	401.3	374.5	829.9	744.7	85.2	0.5672	.9641	1.851 ₇	0.5401 ₂₀	251
252	401.7	374.8	829.7	744.5	85.2	0.5676	.9634	1.844 ₇	0.5422 ₂₁	252
253	402.0	375.2	829.4	744.2	85.2	0.5681	.9627	1.837 ₇	0.5442 ₂₁	253
254	402.4	375.6	829.1	743.9	85.2	0.5685	.9620	1.830 ₇	0.5463 ₂₁	254
255	402.7	375.9	828.9	743.7	85.2	0.5689	.9613	1.823 ₇	0.5484 ₂₁	255
256	403.1	376.3	828.6	743.4	85.2	0.5693	.9606	1.816 ₇	0.5505 ₂₁	256
257	403.4	376.7	828.3	743.1	85.2	0.5698	.9599	1.809 ₇	0.5526 ₂₁	257
258	403.8	377.0	828.1	742.9	85.2	0.5702	.9592	1.802 ₆	0.5547 ₂₁	258
259	404.1	377.4	827.8	742.6	85.2	0.5706	.9585	1.796 ₇	0.5568 ₂₀	259
260	404.5	377.8	827.5	742.3	85.2	0.5710	.9578	1.789 ₆	0.5588 ₂₁	260
261	404.8	378.1	827.3	742.0	85.3	0.5714	.9572	1.783 ₇	0.5609 ₂₁	261
262	405.2	378.5	827.0	741.7	85.3	0.5718	.9565	1.777 ₇	0.5630 ₂₁	262
263	405.5	378.8	826.8	741.5	85.3	0.5722	.9559	1.770 ₇	0.5651 ₂₁	263
264	405.8	379.2	826.5	741.2	85.3	0.5726	.9552	1.763 ₆	0.5672 ₂₁	264
265	406.2	379.6	826.2	740.9	85.3	0.5730	.9545	1.757 ₇	0.5693 ₂₁	265
266	406.5	379.9	826.0	740.7	85.3	0.5734	.9539	1.750 ₆	0.5714 ₂₀	266
267	406.8	380.2	825.8	740.5	85.3	0.5738	.9532	1.744 ₆	0.5734 ₂₁	267
268	407.2	380.6	825.5	740.2	85.3	0.5742	.9525	1.738 ₆	0.5755 ₂₁	268
269	407.5	380.9	825.3	740.0	85.3	0.5746	.9519	1.732 ₆	0.5776 ₂₁	269
270	407.9	381.3	825.0	739.7	85.3	0.5750	.9512	1.726 ₆	0.5797 ₂₀	270
271	408.2	381.6	824.8	739.5	85.3	0.5754	.9505	1.720 ₇	0.5817 ₂₁	271
272	408.5	382.0	824.5	739.2	85.3	0.5759	.9499	1.713 ₆	0.5838 ₂₁	272
273	408.8	382.3	824.3	738.9	85.4	0.5763	.9493	1.707 ₆	0.5859 ₂₁	273
274	409.2	382.7	824.0	738.6	85.4	0.5767	.9486	1.701 ₆	0.5880 ₂₁	274
275	409.5	383.0	823.8	738.4	85.4	0.5771	.9480	1.695 ₆	0.5901 ₂₁	275
276	409.8	383.4	823.5	738.1	85.4	0.5775	.9474	1.689 ₆	0.5922 ₂₁	276
277	410.2	383.7	823.3	737.9	85.4	0.5779	.9467	1.683 ₆	0.5943 ₂₁	277
278	410.5	384.0	823.1	737.7	85.4	0.5782	.9460	1.677 ₅	0.5964 ₂₁	278

Pressure, Pounds per Square Inch.	Temperature Degrees Fahr.	Heat of the Liquid.	Heat of Vaporization	Heat Equivalent of Internal Work.	Heat Equivalent of External Work.	Entropy of the Liquid.	Entropy of Vaporization.	Specific Volume.	Weight, in Pounds, of One Cubic Foot.	Pressure, Pounds per Square Inch.
<i>p</i>	<i>t</i>	<i>q</i>	<i>r</i>	<i>p</i>	<i>Apw</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>γ</i>	<i>p</i>
279	410.8	384.4	822.8	737.4	85.4	0.5786	.9454	1.672 ₆	0.5985 ₂	279
280	411.1	384.7	822.6	737.2	85.4	0.5790	.9448	1.666 ₆	0.600 ₂	280
281	411.4	385.0	822.4	737.0	85.4	0.5794	.9442	1.660 ₆	0.602 ₂	281
282	411.8	385.4	822.1	736.7	85.4	0.5798	.9435	1.654 ₅	0.604 ₂	282
283	412.1	385.7	821.9	736.5	85.4	0.5802	.9429	1.649 ₆	0.606 ₂	283
284	412.4	386.0	821.7	736.3	85.4	0.5806	.9423	1.643 ₅	0.608 ₂	284
285	412.7	386.4	821.4	776.0	85.4	0.5809	.9416	1.638 ₆	0.610 ₂	285
286	413.0	386.7	821.2	735.8	85.4	0.5813	.9410	1.632 ₅	0.612 ₂	286
287	413.4	387.1	820.9	735.5	85.4	0.5817	.9404	1.627 ₆	0.614 ₂	287
288	413.7	387.4	820.7	735.2	85.5	0.5821	.9399	1.621 ₅	0.616 ₂	288
289	414.0	387.7	820.5	735.0	85.5	0.5825	.9393	1.616 ₅	0.618 ₂	289
290	414.3	388.0	820.3	734.8	85.5	0.5829	.9387	1.611 ₆	0.620 ₃	290
291	414.6	388.3	820.1	734.6	85.5	0.5832	.9382	1.605 ₅	0.623 ₂	291
292	414.9	388.6	819.9	734.4	85.5	0.5836	.9377	1.600 ₅	0.625 ₂	292
293	415.3	388.9	819.7	734.2	85.5	0.5840	.9370	1.595 ₆	0.627 ₂	293
294	415.6	389.3	819.4	733.9	85.5	0.5843	.9363	1.589 ₅	0.629 ₂	294
295	415.9	389.7	819.1	733.6	85.5	0.5847	.9357	1.584 ₅	0.631 ₂	295
296	416.2	390.0	818.9	733.4	85.5	0.5851	.9351	1.579 ₅	0.633 ₂	296
297	416.5	390.3	818.7	733.2	85.5	0.5854	.9345	1.574 ₆	0.635 ₂	297
298	416.8	390.6	818.5	733.0	85.5	0.5858	.9340	1.568 ₆	0.637 ₂	298
299	417.1	390.9	818.3	732.8	85.5	0.5862	.9334	1.563 ₅	0.639 ₃	299
300	417.4	391.3	818.0	732.5	85.5	0.5866	.9328	1.558 ₅	0.642 ₂	300
301	417.7	391.6	817.7	732.2	85.5	0.5869	.9322	1.553 ₅	0.644 ₂	301
302	418.0	391.9	817.5	732.0	85.5	0.5873	.9317	1.548 ₅	0.646 ₂	302
303	418.3	392.2	817.3	731.8	85.5	0.5876	.9311	1.543 ₅	0.648 ₂	303
304	418.6	392.5	817.1	731.6	85.5	0.5880	.9306	1.538 ₅	0.650 ₂	304
305	418.9	392.8	816.9	731.4	85.5	0.5884	.9300	1.533 ₅	0.652 ₂	305
306	419.2	393.1	816.7	731.2	85.5	0.5888	.9294	1.528 ₄	0.654 ₂	306
307	419.5	393.5	816.4	730.9	85.5	0.5891	.9288	1.524 ₅	0.656 ₂	307
308	419.8	393.8	816.2	730.7	85.5	0.5894	.9282	1.519 ₅	0.658 ₂	308
309	420.1	394.1	816.0	730.5	85.5	0.5898	.9277	1.514 ₅	0.660 ₂	309
310	420.4	394.4	815.8	730.3	85.5	0.5901	.9271	1.509 ₅	0.662 ₂	310
311	420.7	394.8	815.5	730.0	85.5	0.5905	.9255	1.504 ₄	0.664 ₂	311
312	421.0	395.1	815.3	729.8	85.5	0.5908	.9260	1.500 ₅	0.666 ₃	312
313	421.3	395.4	815.0	729.5	85.5	0.5912	.9254	1.495 ₅	0.669 ₃	313
314	421.6	395.7	814.8	729.2	85.6	0.5916	.9249	1.490 ₅	0.671 ₂	314
315	421.9	396.0	814.6	729.0	85.6	0.5919	.9243	1.485 ₅	0.673 ₂	315
316	422.2	396.3	814.4	728.8	85.6	0.5922	.9237	1.480 ₅	0.675 ₂	316
317	422.5	396.6	814.2	728.6	85.6	0.5926	.9231	1.475 ₄	0.677 ₂	317
318	422.8	396.9	814.0	728.4	85.6	0.5929	.9226	1.471 ₄	0.679 ₂	318
319	423.1	397.2	813.8	728.2	85.6	0.5933	.9220	1.467 ₄	0.681 ₂	319

SATURATED STEAM—TABLE II.

Pressure, Pounds per Square Inch. <i>p</i>	Temperature, Degrees Fahr. <i>t</i>	Heat of the Liquid. <i>q</i>	Heat of Vap- orization. <i>r</i>	Heat Equiva- lent of Inter- nal Work. <i>p</i>	Heat Equiva- lent of Ex- ternal Work. <i>Apu</i>	Entropy of the Liquid. <i>θ</i>	Entropy of Vaporiza- tion. $\frac{r}{T}$	Specific Volume. <i>s</i>	DENSITY.
									Weight, in Pounds, of One Cubic Foot. <i>γ</i>
320	423.4	397.5	813.6	728.0	85.6	0.5936	.9214	1.462 ₅	0.683 ₃
321	423.7	397.8	813.4	727.8	85.6	0.5940	.9209	1.457 ₅	0.686 ₃
322	424.0	398.1	813.1	727.5	85.6	0.5943	.9204	1.453 ₅	0.688 ₃
323	424.2	398.4	812.9	727.3	85.6	0.5946	.9199	1.448 ₅	0.691 ₂
324	424.5	398.7	812.7	727.1	85.6	0.5949	.9193	1.443 ₅	0.693 ₂
325	424.8	399.0	812.5	726.9	85.6	0.5952	.9188	1.439 ₅	0.695 ₂
326	425.1	399.3	812.3	726.7	85.6	0.5956	.9182	1.434 ₄	0.697 ₂
327	425.4	399.6	812.1	726.5	85.6	0.5959	.9176	1.430 ₄	0.699 ₂
328	425.7	399.9	811.9	726.3	85.6	0.5963	.9171	1.426 ₄	0.701 ₂
329	426.0	400.2	811.7	726.1	85.6	0.5967	.9166	1.422 ₅	0.703 ₃
330	426.2	400.5	811.4	725.8	85.6	0.5970	.9161	1.417 ₄	0.706 ₂
331	426.5	400.8	811.2	725.6	85.6	0.5973	.9156	1.413 ₄	0.708 ₂
332	426.8	401.1	811.0	725.4	85.6	0.5977	.9151	1.409 ₄	0.710 ₂
333	427.1	401.4	810.8	725.2	85.6	0.5980	.9145	1.405 ₄	0.712 ₂
334	427.4	401.7	810.6	725.0	85.6	0.5983	.9140	1.401 ₄	0.714 ₂
335	427.6	402.0	810.4	724.8	85.6	0.5987	.9136	1.397 ₄	0.716 ₂
336	427.9	402.3	810.2	724.6	85.6	0.5990	.9131	1.393 ₄	0.718 ₂

TABLE III.

SATURATED STEAM.

FRENCH AND ENGLISH CONVERSION TABLES.*

Temperature, Degrees Centi- grade. <i>t</i>	PRESSURE.			HEAT OF THE LIQUID.		HEAT OF VAPORIZATION.		HEAT EQUIVA- LENT OF IN- TERNAL WORK.		Temperature, Degrees Fahr. <i>t</i>
	Milli- meters of Mer- cury. <i>p</i>	Kilo- grams per Square Centi- meter. <i>p</i>	Pounds per Square Inch. <i>p</i>	Calories. <i>q</i>	B.T.U. <i>q</i>	Calories. <i>r</i>	B.T.U. <i>r</i>	Calories. <i>p</i>	B.T.U. <i>p</i>	
0	4.602	.006257	0.0890	0.00	0.0	606.5	1091.7	575.4	1035.8	32
1	4.941 ³³⁹	.006718 ⁴⁶¹	0.0955 ⁶⁵	1.01	1.8	605.8	1090.4	574.6	1034.4	33.8
2	5.303 ⁵⁶²	.007210 ⁴⁹²	0.1026 ⁷¹	2.02	3.6	605.1	1089.1	573.8	1033.0	35.6
	5.386	.007210 ⁵²⁵	0.1026 ⁷⁴							
3	5.689	.007735	0.1100	3.03	5.5	604.4	1087.9	573.1	1031.5	37.4
4	6.100 ⁴¹¹	.008293 ⁵⁵⁸	0.1179 ⁷⁹	4.03	7.3	603.7	1086.6	572.3	1030.1	39.2
5	6.536 ⁴³⁶	.008886 ⁵⁹³	0.1264 ⁸⁵	5.04	9.1	603.0	1085.3	571.5	1028.7	41.0
	6.565	.008886 ⁶³³	0.1264 ⁹⁰							
6	7.001	.009519	0.1354	6.04	10.9	602.3	1084.1	570.7	1027.3	42.8
7	7.494 ⁴⁹³	.010198 ⁶⁷⁹	0.1449 ⁹⁵	7.05	12.7	601.5	1082.8	569.9	1025.9	44.6
8	7.995 ⁵²⁵	.01090 ⁷¹	0.1551 ¹⁰²	8.05	14.5	600.8	1081.6	569.1	1024.5	46.4
	8.019 ⁵⁵⁷	.01090 ⁷⁶	0.1551 ¹⁰⁷							
9	8.576	.01166	0.1658	9.05	16.3	600.1	1080.3	568.3	1023.1	48.2
10	9.167 ⁵⁹¹	.01246 ⁸⁰	0.1773 ¹¹⁵	10.06	18.1	599.5	1079.1	567.6	1021.7	50.0
11	9.795 ⁶²⁸	.01332 ⁸⁶	0.1894 ¹²¹	11.06	19.9	598.8	1077.8	566.8	1020.3	51.8
	9.795 ⁶⁶⁵	.01332 ⁹⁰	0.1894 ¹²⁹							
12	10.46	.01422	0.2023	12.06	21.7	598.1	1076.6	566.0	1018.9	53.6
13	11.16 ⁷⁰	.01517 ⁹⁵	0.2159 ¹³⁶	13.06	23.5	597.4	1075.3	565.2	1017.5	55.4
14	11.91 ⁷⁵	.01619 ¹⁰²	0.2303 ¹⁴⁴	14.06	25.3	596.7	1074.1	564.4	1016.1	57.2
	11.91 ⁷⁹	.01619 ¹⁰⁸	0.2303 ¹⁵³							
15	12.70	.01727	0.2456	15.06	27.1	596.0	1072.8	563.7	1014.7	59.0
16	13.54 ⁸⁴	.01841 ¹¹⁴	0.2619 ¹⁶³	16.06	28.9	595.3	1071.6	562.9	1013.3	60.8
17	14.42 ⁸⁸	.01961 ¹²⁰	0.2789 ¹⁷⁰	17.06	30.7	594.6	1070.3	562.1	1011.9	62.6
	14.42 ⁹⁴	.01961 ¹²⁷	0.2789 ¹⁸¹							
18	15.36	.02088	0.2970	18.06	32.5	593.9	1069.1	561.3	1010.5	64.4
19	16.35 ⁹⁹	.02223 ¹³⁵	0.3162 ¹⁹²	19.06	34.3	593.2	1067.8	560.5	1009.1	66.2
20	17.40 ¹⁰⁵	.02366 ¹⁴³	0.3364 ²⁰²	20.06	36.1	592.5	1066.6	559.7	1007.7	68.0
	17.40 ¹¹⁰	.02366 ¹⁴⁹	0.3364 ²¹⁴							
21	18.50	.02515	0.3578	21.06	37.9	591.8	1065.3	558.9	1006.3	69.8
22	19.66 ¹¹⁶	.02673 ¹⁵⁸	0.3803 ²²⁵	22.06	39.7	591.1	1064.1	558.1	1004.9	71.6
23	20.89 ¹²³	.02840 ¹⁶⁷	0.4041 ²³⁸	23.06	41.5	590.4	1062.8	557.4	1003.4	73.4
	20.89 ¹³⁰	.02840 ¹⁷⁷	0.4041 ²⁵⁰							
24	22.19	.03017	0.4291	24.06	43.3	589.7	1061.6	556.6	1002.0	75.2
25	23.55 ¹³⁶	.03202 ¹⁸⁵	0.4555 ²⁶⁴	25.05	45.1	589.0	1060.3	555.8	1000.6	77.0
26	24.99 ¹⁴⁴	.03398 ¹⁹⁶	0.4834 ²⁷⁹	26.05	46.9	588.3	1059.1	555.0	999.2	78.8
	24.99 ¹⁵²	.03398 ²⁰⁶	0.4834 ²⁹³							
27	26.51 ¹⁶⁰	.03604 ²¹⁰	0.5127 ³⁰⁰	27.05	48.7	587.6	1057.8	554.3	997.8	80.6

TABLE III.

SATURATED STEAM.

FRENCH AND ENGLISH CONVERSION TABLE.

Temperature, Degrees Centi- grade.	HEAT EQUIVALENT OF EXTER- NAL WORK.		Entropy of the Liquid.	Entropy of Vaporization.	SPECIFIC VOLUME.		Weight in Kilo- grams of One Cubic Meter.
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.	
<i>t</i>	<i>A pu</i>	<i>A pu</i>	<i>0</i>	$\frac{r}{t}$	<i>s</i>	<i>s</i>	<i>γ</i>
0	31.1	55.9	0	2.2211	212.0 ₁₃₈	3395 ₂₂₀	0.00471
1	31.2	56.0	0.0037	2.2105	198.2 ₁₃₂	3175 ₂₁₂	0.00504
2	31.3	56.2	0.0074	2.2000	185.0 ₁₂₂	2963 ₁₉₅	0.00540
3	31.3	56.3	0.0110	2.1890	172.8 ₁₁₂	2768 ₁₇₉	0.00578
4	31.4	56.5	0.0146	2.1789	161.6 ₁₀₄	2589 ₁₆₈	0.00618
5	31.5	56.6	0.0183	2.1684	151.2 ₉₆	2421 ₁₅₃	0.00661
6	31.6	56.8	0.0219	2.1583	141.6 ₉₁	2268 ₁₄₆	0.00706
7	31.7	56.9	0.0256	2.1482	132.5 ₈₃	2122 ₁₃₃	0.00754
8	31.7	57.1	0.0290	2.1379	124.2 ₇₈	1989 ₁₂₄	0.00805
9	31.8	57.2	0.0326	2.1279	116.4 ₇₁	1865 ₁₁₆	0.00859
10	31.9	57.4	0.0361	2.1180	109.3 ₆₈	1749 ₁₀₇	0.00914
11	32.0	57.5	0.0397	2.1081	102.5 ₆₂	1642 ₉₉	0.00975
12	32.1	57.7	0.0433	2.0983	96.33 ₅₉₁	1543 ₉₅	0.01033
13	32.2	57.8	0.0467	2.0885	90.42 ₅₄₇	1448 ₈₇	0.01103
14	32.3	58.0	0.0502	2.0786	84.95 ₅₀₈	1361 ₈₂	0.01177
15	32.3	58.1	0.0537	2.0691	79.87 ₄₇₁	1279 ₇₅	0.01255
16	32.4	58.3	0.0571	2.0595	75.16 ₄₄₃	1204 ₇₁	0.01333
17	32.5	58.4	0.0607	2.0502	70.73 ₄₁₃	1133 ₆₆	0.01411
18	32.6	58.6	0.0641	2.0410	66.60 ₃₈₇	1067 ₆₂	0.01500
19	32.7	58.7	0.0675	2.0313	62.73 ₃₆₁	1005 ₅₅₈	0.01590
20	32.8	58.9	0.0709	2.0221	59.12 ₃₃₈	946.9 ₅₄₀	0.01690
21	32.9	59.1	0.0743	2.0129	55.74 ₃₁₆	892.9 ₅₀₇	0.01790
22	33.0	59.2	0.0776	2.0035	52.58 ₂₉₆	842.2 ₄₇₄	0.01900
23	33.0	59.4	0.0811	1.9945	49.62 ₂₇₈	794.8 ₄₄₅	0.02010
24	33.1	59.5	0.0845	1.9854	46.84 ₂₅₉	750.3 ₄₁₆	0.02130
25	33.2	59.7	0.0878	1.9763	44.25 ₂₄₃	708.7 ₃₈₈	0.02260
26	33.3	59.9	0.0911	1.9673	41.82 ₂₂₈	669.9 ₃₆₅	0.02390

Temperature, Degrees Cent. grade.	PRESSURE.			HEAT OF THE LIQUID.		HEAT OF VAPORIZATION.		HEAT OF IN- TERNAL WORK.		Temperature, Degrees Fahr.
<i>t</i>	Milli- meters of Mer- cury	Kilo- grams per Square Centi- meter.	Pounds per Square Inch.	Calories.	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	<i>t</i>
31	33.41	0.0454	0.6462	31.04	55.9	585.0	1052.9	551.2	992.2	87.8
32	35.36	0.0480	0.6839	32.04	57.7	584.3	1051.6	550.4	990.7	89.6
33	37.42	0.0508	0.7236	33.04	59.5	583.6	1050.3	549.6	989.2	91.4
34	39.57	0.0538	0.7653	34.03	61.3	582.9	1049.0	548.8	987.8	93.2
35	41.83	0.0568	0.8090	35.03	63.1	582.2	1047.8	548.1	986.4	95.0
36	44.21	0.0601	0.8550	36.03	64.9	581.5	1046.6	547.3	985.0	96.8
37	46.70	0.0635	0.9031	37.02	66.6	580.8	1045.4	546.5	983.6	98.6
38	49.31	0.0670	0.9536	38.02	68.4	580.1	1044.2	545.7	982.2	100.4
39	52.05	0.0707	1.0066	39.02	70.2	579.4	1042.9	544.9	980.9	102.2
40	54.91	0.0746	1.0619	40.02	72.0	578.7	1041.7	544.1	979.5	104.0
41	57.92	0.0787	1.1202	41.01	73.8	578.0	1040.4	543.3	978.1	105.8
42	61.06	0.0830	1.1809	42.01	75.6	577.3	1039.2	542.5	976.6	107.6
43	64.35	0.0875	1.2445	43.01	77.4	576.6	1037.9	541.7	975.2	109.4
44	67.80	0.0921	1.3113	44.01	79.2	575.9	1036.7	540.9	973.7	111.2
45	71.40	0.0970	1.3807	45.00	81.0	575.2	1035.4	540.1	972.3	113.0
46	75.16	0.1022	1.4536	46.00	82.8	574.5	1034.1	539.3	970.9	114.8
47	79.10	0.1075	1.5298	47.00	84.6	573.8	1032.9	538.5	969.5	116.6
48	83.21	0.1131	1.6093	48.00	86.4	573.1	1031.6	537.7	968.0	118.4
49	87.51	0.1189	1.6924	48.99	88.2	572.4	1030.5	537.0	966.7	120.2
50	91.98	0.1250	1.7789	49.99	90.0	571.8	1029.2	536.3	965.3	122.0
51	96.65	0.1314	1.8690	50.99	91.8	571.1	1027.9	535.5	963.9	123.8
52	101.54	0.1380	1.9634	51.99	93.6	570.4	1026.7	534.6	962.4	125.6
53	106.64	0.1449	2.0620	52.99	95.4	569.7	1025.4	533.8	961.0	127.4
54	111.95	0.1522	2.1647	53.98	97.2	569.0	1024.2	533.0	959.5	129.2
55	117.49	0.1597	2.2719	54.98	99.0	568.3	1022.9	532.2	958.1	131.0
56	123.25	0.1675	2.3833	55.98	100.8	567.6	1021.7	531.5	956.7	132.8
57	129.26	0.1757	2.4995	56.98	102.6	566.9	1020.4	530.8	955.3	134.6
58	135.51	0.1842	2.6204	57.98	104.4	566.2	1019.2	530.0	953.8	136.4
59	142.02	0.1930	2.7463	58.97	106.2	565.5	1017.9	529.2	952.4	138.2
60	148.80	0.2023	2.8774	59.97	108.0	564.8	1016.6	528.4	950.9	140.0
61	155.85	0.2118	3.0137	60.97	109.8	564.1	1015.3	527.6	949.5	141.8
62	163.18	0.2218	3.1555	61.97	111.6	563.4	1014.1	526.8	948.0	143.6
63	170.80	0.2322	3.3029	62.97	113.4	562.7	1012.9	526.0	946.7	145.4
64	178.72	0.2429	3.4560	63.98	115.2	562.0	1011.7	525.1	945.2	147.2
65	186.95	0.2541	3.6152	64.98	117.0	561.3	1010.4	524.3	943.8	149.0
66	195.50	0.2658	3.7806	65.98	118.8	560.6	1009.2	523.5	942.4	150.8
67	204.38	0.2778	3.9523	66.98	120.6	559.9	1007.8	522.7	940.9	152.6
68	213.60	0.2904	4.1306	67.98	122.4	559.2	1006.6	521.9	939.5	154.4
69	223.17	0.3034	4.3157	68.98	124.2	558.5	1005.3	521.1	938.0	156.2
70	233.00	0.3160	4.5075	69.98	126.0	557.8	1004.1	520.3	936.5	158.0

Temperature, Degrees Cen- grade.	CALORIES OF EXTER- NAL WORK.		Entropy of Liquid.	Entropy of Vaporization	VOLUME.		Weight, in Kilo- grams, of One Cubic Meter.	Weight, in Pounds, of One Cubic Foot.	Temperature, Degrees Fal-
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.			
<i>t</i>	<i>Apr</i>	<i>Apr</i>	<i>θ</i>	<i>T</i>	<i>s</i>	<i>s</i>	<i>γ</i>	<i>γ</i>	<i>t</i>
31	33.8	60.7	0.1077	1.9238	31.72 ¹⁶⁷	508.1 ²⁶⁷	0.03153 ¹⁷⁵	0.001968 ¹⁰⁹	87.8
32	33.9	60.9	0.1110	1.9152	30.05 ¹⁵⁷	481.4 ²⁵²	0.03328 ¹⁸³	0.002077 ¹¹⁵	89.6
33	34.0	61.0	0.1142	1.9066	28.48 ¹⁴⁸	456.2 ²³⁷	0.03511 ¹⁹³	0.002192 ¹²⁰	91.4
34	34.1	61.2	0.1175	1.8981	27.00 ¹³⁸	432.5 ²²³	0.03704 ¹⁹⁹	0.002312 ¹²⁶	93.2
35	34.1	61.4	0.1207	1.8896	25.62 ¹³¹	410.2 ²⁰⁸	0.03903 ²¹¹	0.002438 ¹³⁰	95.0
36	34.2	61.6	0.1239	1.8814	24.31 ¹²⁴	389.4 ¹⁹⁹	0.04114 ²²¹	0.002568 ¹³⁸	96.8
37	34.3	61.7	0.1272	1.8732	23.07 ¹¹⁶	369.5 ¹⁸⁵	0.04335 ²²⁹	0.002706 ¹⁴³	98.6
38	34.4	61.9	0.1304	1.8649	21.91 ¹¹⁰	351.0 ¹⁷⁷	0.04564 ²⁴¹	0.002849 ¹⁵¹	100.4
39	34.5	62.0	0.1336	1.8566	20.81 ¹⁰³	333.3 ¹⁶⁵	0.04805 ²⁵¹	0.003000 ¹⁵⁷	102.2
40	34.6	62.2	0.1368	1.8485	19.78 ⁹⁸	316.8 ¹⁵⁷	0.05056 ²⁶³	0.003157 ¹⁶⁴	104.0
41	34.7	62.4	0.1399	1.8405	18.80 ⁹²	301.1 ¹⁴⁷	0.05319 ²⁷⁴	0.003321 ¹⁷¹	105.8
42	34.8	62.6	0.1431	1.8324	17.88 ⁸⁶	286.4 ¹³⁸	0.05593 ²⁸²	0.003492 ¹⁷⁶	107.6
43	34.9	62.7	0.1463	1.8243	17.02 ⁸²	272.6 ¹³¹	0.05875 ²⁹⁸	0.003668 ¹⁸⁶	109.4
44	35.0	62.9	0.1494	1.8164	16.20 ⁷⁸	259.5 ¹²⁵	0.06173 ³¹²	0.003854 ¹⁹⁵	111.2
45	35.1	63.1	0.1526	1.8085	15.42 ⁷³	247.0 ¹¹⁷	0.06485 ³²²	0.004049 ²⁰¹	113.0
46	35.2	63.3	0.1557	1.8007	14.69 ⁶⁹	235.3 ¹¹⁰	0.06807 ³³⁶	0.004250 ²⁰⁸	114.8
47	35.3	63.4	0.1588	1.7929	14.00 ⁶⁶	224.3 ¹⁰⁶	0.07143 ³⁵³	0.004458 ²²¹	116.6
48	35.4	63.6	0.1619	1.7851	13.34 ⁶³	213.7 ¹⁰¹	0.07496 ³⁷²	0.004679 ²³³	118.4
49	35.5	63.7	0.1650	1.7774	12.71 ⁵⁸	203.6 ⁹³	0.07868 ³⁷⁶	0.004912 ²³⁵	120.2
50	35.6	63.9	0.1682	1.7699	12.13 ⁵⁵	194.3 ⁸⁸	0.08244 ³⁹²	0.005147 ²⁴⁴	122.0
51	35.7	64.1	0.1713	1.7623	11.58 ⁵³	185.5 ⁸⁵	0.08636 ⁴¹⁴	0.005391 ²⁵⁹	123.8
52	35.8	64.3	0.1743	1.7548	11.05 ⁵⁰	177.0 ⁸⁰	0.09050 ⁴²⁹	0.005650 ²⁶⁷	125.6
53	35.9	64.4	0.1774	1.7472	10.55 ⁴⁷	169.0 ⁷⁵	0.09479 ⁴⁴²	0.005917 ²⁷⁵	127.4
54	36.0	64.6	0.1804	1.7397	10.08 ⁴⁵	161.5 ⁷³	0.09921 ⁴⁶⁹	0.006192 ²⁹³	129.2
55	36.1	64.8	0.1835	1.7323	9.628 ⁴²⁵	154.2 ⁶⁸	0.1039 ⁴⁸	0.006485 ²⁹⁹	131.0
56	36.2	65.0	0.1865	1.7249	9.203 ⁴⁰³	147.4 ⁶⁴	0.1087 ⁴⁹	0.006784 ³⁰⁸	132.8
57	36.2	65.2	0.1895	1.7175	8.800 ³⁸³	141.0 ⁶²	0.1136 ⁵²	0.007092 ³²⁶	134.6
58	36.3	65.3	0.1925	1.7102	8.417 ³⁶³	134.8 ⁵⁸	0.1188 ⁵⁴	0.007418 ³³⁴	136.4
59	36.4	65.5	0.1955	1.7029	8.054 ³⁵¹	129.0 ⁵⁶	0.1242 ⁵⁶	0.007752 ³⁴⁸	138.2
60	36.5	65.7	0.1986	1.6957	7.703 ³²⁶	123.4 ⁵²	0.1298 ⁵⁸	0.008100 ³⁶⁰	140.0
61	36.6	65.9	0.2016	1.6886	7.377 ³¹²	118.2 ⁵⁰	0.1356 ⁵⁹	0.008460 ³⁷⁴	141.8
62	36.7	66.1	0.2046	1.6815	7.065 ²⁹⁷	113.2 ⁴⁸	0.1415 ⁶³	0.008834 ³⁸³	143.6
63	36.8	66.2	0.2075	1.6745	6.768 ²⁸⁵	108.4 ⁴⁶	0.1478 ⁶⁵	0.009225 ³⁹¹	145.4
64	36.9	66.4	0.2105	1.6675	6.483 ²⁷⁰	103.8 ⁴²⁵	0.1543 ⁶⁷	0.009634 ⁴¹⁶	147.2
65	37.0	66.6	0.2135	1.6605	6.213 ²⁵⁴	99.54 ⁴⁰⁹	0.1616 ⁶⁸	0.01005 ⁴³	149.0
66	37.1	66.8	0.2164	1.6536	5.959 ²⁴²	95.45 ³⁸⁷	0.1678 ⁷¹	0.01048 ⁴⁴	150.8
67	37.2	66.9	0.2194	1.6467	5.717 ²³³	91.58 ³⁷⁴	0.1749 ⁷⁴	0.01092 ⁴⁶	152.6
68	37.3	67.1	0.2123	1.6398	5.484 ²²²	87.84 ³⁵⁵	0.1823 ⁷⁷	0.01138 ⁴⁸	154.4
69	37.4	67.2	0.2153	1.6329	5.262 ²¹¹	84.29 ³⁴¹	0.1900 ⁸⁰	0.01186 ⁵⁰	156.2
70	37.5	67.4	0.2183	1.6261	5.051 ²⁰⁰	80.88 ³²⁸	0.1980 ⁸³	0.01236 ⁵³	158.0

SATURATED STEAM—TABLE III.

Temperature, Degrees Centi- grade. <i>t</i>	PRESSURE.			HEAT OF THE LIQUID.		HEAT OF VAPORIZATION.		HEAT EQUIVA- LENT OF IN- TERNAL WORK.		Temperature, Degrees Fahr. <i>t</i>
	Milli- meters of Mer- cury. <i>p</i>	Kilo- grams per Square Centi- meter. <i>p</i>	Pounds per Square Inch. <i>p</i>	Calories. <i>q</i>	B.T.U. <i>q</i>	Calories. <i>r</i>	B.T.U. <i>r</i>	Calories. <i>p</i>	B.T.U. <i>p</i>	
71	243.39	0.33091	4.7067	70.98	127.8	557.2	1002.9	519.7	935.3	159.8
72	254.07 ¹⁰⁶⁸	0.34544 ¹⁴⁵³	4.9132 ²⁰⁶⁵	71.99	129.6	556.5	1001.6	518.9	933.9	161.6
73	265.14 ¹¹⁰⁷	0.36050 ¹⁵⁰⁶	5.1273 ²¹⁴¹	72.99	131.4	555.8	1000.4	518.1	932.4	163.4
	1148	1559	2220							
74	276.62	0.37609	5.3493	73.99	133.2	555.1	999.1	517.3	931.0	165.2
75	288.51 ¹¹⁸⁹	0.39226 ¹⁶¹⁷	5.5792 ²²⁹⁹	74.99	135.0	554.4	997.9	516.5	929.6	167.0
76	300.83 ¹²³²	0.40900 ¹⁶⁷⁴	5.8175 ²³⁸³	76.00	136.8	553.7	996.6	515.7	928.2	168.8
	1276	1736	2467							
77	313.59	0.42636	6.0642	77.00	138.6	553.0	995.4	514.8	926.8	170.6
78	326.80 ¹³²¹	0.44433 ¹⁷⁹⁷	6.3197 ²⁵⁵⁵	78.00	140.4	552.3	994.2	514.0	925.4	172.4
79	340.48 ¹³⁶⁸	0.46293 ¹⁸⁶⁰	6.5842 ²⁶⁴⁵	79.01	142.2	551.6	992.9	513.2	923.9	174.2
	1415	1924	2736							
80	354.63	0.48217	6.8578	80.01	144.0	550.9	991.6	512.5	922.5	176.0
81	369.27 ¹⁴⁶⁴	0.50205 ¹⁹⁸⁸	7.1409 ²⁸³¹	81.02	145.8	550.2	990.3	511.7	921.1	177.8
82	384.41 ¹⁵¹⁴	0.52264 ²⁰⁵⁹	7.4337 ²⁹²⁸	82.02	147.6	549.5	989.1	510.9	919.6	179.6
	1567	2131	3030							
83	400.08	0.54395	7.7367	83.03	149.4	548.8	987.8	510.1	918.2	181.4
84	416.27 ¹⁶¹⁹	0.56598 ²²⁰³	8.0499 ³¹³²	84.03	151.2	548.1	986.6	509.3	916.7	183.2
85	433.01 ¹⁶⁷⁴	0.58870 ²²⁷²	8.3730 ³²³¹	85.04	153.1	547.4	985.3	508.5	915.3	185.0
	1730	2368	3351							
86	450.31	0.61238	8.7081	86.04	154.9	546.7	984.0	507.7	913.9	186.8
87	468.18 ¹⁷⁸⁷	0.63656 ²⁴¹⁸	9.0537 ³⁴⁵⁶	87.05	156.7	545.9	982.8	506.9	912.5	188.6
88	486.64 ¹⁸⁴⁶	0.66162 ²⁵⁰⁶	9.4106 ³⁵⁶⁹	88.06	158.5	545.2	981.5	506.1	911.0	190.4
	1907	2593	3684							
89	505.71	0.68755	9.779	89.06	160.3	544.5	980.3	505.2	909.6	192.2
90	525.40 ¹⁹⁶⁹	0.71435 ²⁶⁸⁰	10.160 ³⁸¹	90.07	162.1	543.9	979.0	504.5	908.2	194.0
91	545.72 ²⁰³²	0.74195 ²⁷⁶⁰	10.553 ³⁹³	91.08	163.9	543.2	977.8	503.9	906.9	195.8
	2098	2855	406							
92	566.70	0.77050	10.959	92.08	165.7	542.5	976.6	503.1	905.5	197.6
93	588.34 ²¹⁶⁴	0.79988 ²⁹³⁸	11.377 ⁴¹⁸	93.09	167.5	541.8	975.2	502.2	904.0	199.4
94	610.67 ²²³³	0.83025 ³⁰³⁷	11.809 ⁴³²	94.10	169.3	541.1	974.0	501.4	902.6	201.2
	2303	3130	445							
95	633.70	0.86155	12.254	95.11	171.2	540.4	972.7	500.6	901.2	203.0
96	657.45 ²³⁷⁵	0.89388 ³²³³	12.714 ⁴⁶⁰	96.12	173.0	539.7	971.4	499.8	899.7	204.8
97	681.93 ²⁴⁴⁸	0.92715 ³³²⁷	13.187 ⁴⁷³	97.12	174.8	539.0	970.1	499.0	898.3	206.6
	2524	3430	488							
98	707.17	0.96145	13.675	98.13	176.6	538.3	969.0	498.4	896.9	208.4
99	733.19 ²⁶⁰²	0.99680 ³⁵³⁵	14.178 ⁵⁰³	99.14	178.5	537.6	967.6	497.5	895.4	210.2
100	760.00 ²⁶⁸¹	1.0333 ³⁶⁵⁰	14.697 ⁵¹⁹	100.2	180.3	536.8	966.3	496.6	893.9	212.0
	275	374	532							
101	787.5	1.0707	15.229	101.2	182.1	536.1	965.0	495.8	892.5	213.8
102	815.8 ²⁸³	1.1093 ³⁸⁶	15.776 ⁵⁴⁷	102.2	183.9	535.4	963.7	494.9	891.0	215.6
103	845.0 ²⁹²	1.1490 ³⁹⁷	16.341 ⁵⁶⁵	103.2	185.7	534.7	962.5	494.1	889.6	217.4
	301	408	582							
104	875.1	1.1898	16.923	104.2	187.6	534.0	961.1	493.4	888.0	219.2
	300	421	593							

Temperature, Degrees Con- grade.	OF EXTER- NAL WORK.		Entropy of Liquid.	Entropy of Vaporization	Cubic Meters per Kilo.	Cubic Feet per Pound.	Weight, in Kilo- grams, of One Cubic Meter.	Weight, in Pounds, of One Cubic Foot.
<i>t</i>	Calories. <i>Apu</i>	B.T.U. <i>Apu</i>	θ	$\frac{r}{T}$	<i>s</i>	<i>s</i>	γ	γ
71	37.6	67.6	0.2311	1.6194	4.850 ¹⁹¹	77.69 ³⁰⁶	0.2062 ⁸⁴	0.01287 ⁵³
72	37.7	67.8	0.2340	1.6126	4.659 ¹⁸⁴	74.63 ²⁹⁵	0.2146 ⁸⁹	0.01340 ⁵⁵
73	37.8	67.9	0.2369	1.6060	4.475 ¹⁷⁵	71.68 ²⁸¹	0.2235 ⁹¹	0.01395 ⁵⁷
74	37.9	68.1	0.2398	1.5994	4.300 ¹⁶⁶	68.87 ²⁶⁶	0.2326 ⁹³	0.01452 ⁵⁸
75	38.0	68.3	0.2427	1.5928	4.134 ¹⁶⁰	66.21 ²⁵⁵	0.2419 ⁹⁷	0.01510 ⁶¹
76	38.1	68.5	0.2456	1.5862	3.974 ¹⁵²	63.66 ²⁴⁴	0.2516 ¹⁰⁰	0.01571 ⁶²
77	38.2	68.6	0.2484	1.5797	3.822 ¹⁴⁵	61.22 ²³²	0.2616 ¹⁰⁴	0.01633 ⁶⁵
78	38.3	68.8	0.2513	1.5733	3.677 ¹³⁹	58.90 ²²³	0.2720 ¹⁰⁶	0.01698 ⁶⁷
79	38.4	68.9	0.2541	1.5668	3.538 ¹³²	56.67 ²¹³	0.2826 ¹¹⁰	0.01765 ⁶⁹
80	38.4	69.1	0.2570	1.5604	3.406 ¹²⁸	54.54 ²⁰³	0.2936 ¹¹⁵	0.01834 ⁷⁰
81	38.5	69.3	0.2598	1.5540	3.278 ¹²¹	52.51 ¹⁹⁴	0.3051 ¹¹⁷	0.01904 ⁷³
82	38.6	69.5	0.2626	1.5477	3.157 ¹¹⁷	50.57 ¹⁸⁷	0.3168 ¹²¹	0.01977 ⁷⁶
83	38.7	69.6	0.2654	1.5414	3.040 ¹¹¹	48.70 ¹⁷⁸	0.3289 ¹²⁵	0.02053 ⁷⁸
84	38.8	69.8	0.2682	1.5351	2.929 ¹⁰⁷	46.92 ¹⁷²	0.3414 ¹³⁰	0.02131 ⁸¹
85	38.9	70.0	0.2711	1.5288	2.822 ¹⁰²	45.20 ¹⁶⁴	0.3544 ¹³⁴	0.02212 ⁸⁴
86	39.0	70.2	0.2739	1.5226	2.720 ⁹⁸	43.56 ¹⁵⁶	0.3676 ¹³⁸	0.02296 ⁸⁶
87	39.1	70.3	0.2767	1.5164	2.622 ⁹³	42.00 ¹⁴⁹	0.3814 ¹⁴⁰	0.02381 ⁸⁸
88	39.2	70.5	0.2795	1.5103	2.529 ⁹⁰	40.51 ¹⁴⁴	0.3954 ¹⁴⁶	0.02469 ⁹¹
89	39.3	70.6	0.2823	1.5042	2.439 ⁸⁶	39.07 ¹³⁹	0.4100 ¹⁵⁰	0.02560 ⁹⁴
90	39.4	70.8	0.2851	1.4981	2.353 ⁸²	37.68 ¹³⁰	0.4250 ¹⁵³	0.02654 ⁹⁵
91	39.4	70.9	0.2879	1.4921	2.271 ⁸⁰	36.38 ¹²⁸	0.4403 ¹⁶¹	0.02749 ¹⁰⁰
92	39.5	71.1	0.2906	1.4861	2.191 ⁷⁶	35.10 ¹²²	0.4564 ¹⁶⁴	0.02849 ¹⁰³
93	39.6	71.2	0.2934	1.4801	2.115 ⁷²	33.88 ¹¹⁷	0.4728 ¹⁶⁷	0.02952 ¹⁰⁵
94	39.7	71.4	0.2961	1.4741	2.043 ⁷¹	32.71 ¹¹²	0.4895 ¹⁷⁶	0.03057 ¹⁰⁹
95	39.8	71.5	0.2989	1.4682	1.972 ⁶⁷	31.59 ¹⁰⁸	0.5071 ¹⁷⁸	0.03166 ¹¹²
96	39.9	71.7	0.3016	1.4623	1.905 ⁶⁵	30.51 ¹⁰⁴	0.5249 ¹⁸⁶	0.03278 ¹¹⁵
97	40.0	71.9	0.3043	1.4564	1.840 ⁶²	29.47 ⁹⁹	0.5435 ¹⁸⁹	0.03393 ¹¹⁸
98	40.0	72.0	0.3070	1.4506	1.778 ⁵⁹	28.48 ⁹⁴	0.5624 ¹⁹³	0.03511 ¹²⁰
99	40.1	72.2	0.3097	1.4448	1.719 ⁵⁴	27.54 ⁸⁸	0.5817 ¹⁸⁹	0.03631 ¹²⁰
100	40.3	72.4	0.3125	1.4390	1.665 ⁵²	26.66 ⁸²	0.6006 ¹⁹⁴	0.03751 ¹¹⁹
101	40.4	72.6	0.3152	1.4333	1.613 ⁵³	25.84 ⁸⁵	0.6200 ²¹⁰	0.03870 ¹³²
102	40.5	72.8	0.3179	1.4276	1.560 ⁵¹	24.99 ⁸²	0.6410 ²¹⁷	0.04002 ¹³⁵
103	40.6	72.9	0.3205	1.4219	1.509 ⁵⁰	24.17 ⁸⁰	0.6627 ²²⁷	0.04137 ¹⁴²
104	40.6	73.0	0.3232	1.4162	1.459 ⁴⁷	23.37 ⁷⁶	0.6854 ²²⁸	0.04279 ¹⁴⁴
105	40.7	73.2	0.3259	1.4106	1.412 ⁴⁵	22.61 ⁷²	0.7082 ²³³	0.04423 ¹⁴⁵
106	40.8	73.3	0.3286	1.4051	1.367 ⁴⁴	21.89 ⁷⁰	0.7315 ²⁴⁴	0.04568 ¹⁵¹
107	40.9	73.5	0.3312	1.3996	1.323 ⁴²	21.19 ⁶⁷	0.7559 ²⁴⁷	0.04719 ¹⁵⁴
108	40.9	73.6	0.3339	1.3941	1.281 ⁴¹	20.52 ⁶⁶	0.7806 ²⁵⁹	0.04873 ¹⁶²
109	41.0	73.8	0.3365	1.3886	1.240 ³⁹	19.86 ⁶²	0.8065 ²⁶¹	0.05035 ¹⁶²

Degrees Cent. grade.	PRESSURE.				THE LIQUID.		VAPORIZATION.		HEAT OF INTERNAL WORK.		Temperature, Degrees Fahr.
	Milli- meters of Mer- cury.	Kilo- grams per Square Centi- meter.	Pounds per Square Inch.		Calories.	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	
<i>t</i>	<i>p</i>	<i>p</i>	<i>p</i>		<i>q</i>	<i>q</i>	<i>r</i>	<i>r</i>	<i>p</i>	<i>p</i>	<i>t</i>
11	1111.4	1.5110	21.492		111.3	200.3	529.1	952.3	488.0	878.3	231.8
12	1149.1 ³⁷⁷	1.5623 ⁵¹³	22.221 ⁷²⁹		112.3	202.1	528.4	951.1	487.2	877.0	233.6
13	1187.9 ³⁸⁸	1.6151 ⁵²⁸	22.972 ⁷⁵¹		113.3	203.9	527.7	949.8	486.5	875.4	235.4
	1187.9 ³⁹⁸	1.6151 ⁵⁴¹	22.972 ⁷⁶⁹								
14	1227.7	1.6692	23.741		114.3	205.8	527.0	948.5	485.6	874.0	237.2
15	1268.7 ⁴¹⁰	1.7248 ⁵⁵⁶	24.533 ⁷⁹²		115.3	207.6	526.3	947.2	484.8	872.6	239.0
16	1310.7 ⁴²⁰	1.7820 ⁵⁷²	25.346 ⁸¹³		116.4	209.4	525.5	945.9	484.0	871.2	240.8
	1310.7 ⁴³²	1.7820 ⁵⁸⁸	25.346 ⁸³⁶								
17	1353.9	1.8408	26.182		117.4	211.2	524.8	944.5	483.2	869.7	242.6
18	1398.3 ⁴⁴⁴	1.9011 ⁶⁰³	27.040 ⁸⁵⁸		118.4	213.0	524.1	943.3	482.4	868.3	244.4
19	1443.8 ⁴⁵⁵	1.9630 ⁶¹⁹	27.920 ⁸⁸⁰		119.4	214.9	523.4	942.2	481.7	867.0	246.2
	1443.8 ⁴⁶⁷	1.9630 ⁶³⁵	27.920 ⁹⁰⁴								
20	1490.5	2.0265	28.824		120.4	216.7	522.7	940.9	480.9	865.6	248.0
21	1538.5 ⁴⁸⁰	2.0918 ⁶⁵³	29.752 ⁹²⁸		121.4	218.5	522.0	939.6	480.2	864.2	249.8
22	1587.7 ⁴⁹²	2.1586 ⁶⁶⁸	30.703 ⁹⁵¹		122.5	220.4	521.2	938.2	479.3	862.7	251.6
	1587.7 ⁵⁰⁶	2.1586 ⁶⁸⁸	30.703 ⁹⁷⁸								
23	1638.3	2.2274	31.681		123.5	222.2	520.5	937.0	478.5	861.2	253.4
24	1690.1 ⁵¹⁸	2.2978 ⁷⁰⁴	32.683 ^{1.002}		124.5	224.1	519.8	935.7	477.7	859.8	255.2
25	1743.3 ⁵³²	2.3701 ⁷²³	33.711 ^{1.028}		125.5	225.9	519.1	934.4	476.9	858.4	257.0
	1743.3 ⁵⁴⁵	2.3701 ⁷⁴²	33.711 ^{1.055}								
26	1797.8	2.4443	34.766		126.5	227.7	518.4	933.2	476.2	857.0	258.8
27	1853.7 ⁵⁵⁹	2.5203 ⁷⁶⁰	35.847 ^{1.081}		127.5	229.5	517.6	931.8	475.3	855.5	260.6
28	1911.0 ⁵⁷³	2.5982 ⁷⁷⁹	36.955 ^{1.108}		128.6	231.4	516.9	930.6	474.5	854.2	262.4
	1911.0 ⁵⁸⁷	2.5982 ⁷⁹⁸	36.955 ^{1.135}								
29	1969.7	2.6780	38.090		129.6	233.3	516.2	929.3	473.7	852.8	264.2
30	2029.8 ⁶⁰¹	2.7599 ⁸¹⁹	39.255 ^{1.165}		130.6	235.1	515.6	928.1	473.0	851.4	266.0
31	2091.5 ⁶¹⁷	2.8436 ⁸³⁷	40.445 ^{1.190}		131.6	236.9	514.9	926.8	472.3	850.0	267.8
	2091.5 ⁶³³	2.8436 ⁸⁶¹	40.445 ^{1.225}								
32	2154.8	2.9297	41.670		132.6	238.7	514.2	925.5	471.5	848.6	269.6
33	2219.5 ⁶⁴⁷	3.0176 ⁸⁷⁹	42.921 ^{1.251}		133.7	240.6	513.5	924.2	470.6	847.0	271.4
34	2285.8 ⁶⁶³	3.1078 ⁹⁰²	44.203 ^{1.282}		134.7	242.4	512.8	922.9	469.8	845.6	273.2
	2285.8 ⁶⁷⁹	3.1078 ⁹²²	44.203 ^{1.312}								
35	2353.7	3.2000	45.515		135.7	244.2	512.1	921.6	469.1	844.2	275.0
36	2423.2 ⁶⁹⁵	3.2946 ⁹⁴⁶	46.860 ^{1.345}		136.7	246.0	511.4	920.2	468.2	842.7	276.8
37	2494.4 ⁷¹²	3.3914 ⁹⁶⁸	48.237 ^{1.377}		137.7	247.9	510.7	919.0	467.4	841.3	278.6
	2494.4 ⁷²⁸	3.3914 ⁹⁹⁰	48.237 ^{1.408}								
38	2567.2	3.4904	49.645		138.8	249.7	510.0	917.6	466.6	839.8	280.4
39	2641.7 ⁷⁴⁵	3.5916 ¹⁰¹²	51.085 ^{1.440}		139.8	251.6	509.2	916.5	465.8	838.5	282.2
40	2717.9 ⁷⁶²	3.6953 ¹⁰³⁷	52.56 ^{1.475}		140.8	253.4	508.6	915.2	465.0	837.1	284.0
	2717.9 ⁷⁸⁰	3.6953 ¹⁰⁶²	52.56 ^{1.51}								
1	2795.9	3.8015	54.07		141.8	255.3	507.9	913.8	464.2	835.6	285.8
2	2875.7 ⁷⁹⁸	3.9098 ¹⁰⁸³	55.61 ^{1.54}		142.8	257.1	507.0	912.6	463.4	834.2	287.6
3	2957.3 ⁸¹⁶	4.0208 ¹¹¹⁰	57.19 ^{1.58}		143.9	259.0	506.2	911.2	462.6	832.8	289.4
	2957.3 ⁸³⁵	4.0208 ¹¹³²	57.19 ^{1.61}								
4	3040.8	4.1340	58.80		144.9	260.8	505.5	910.0	461.8	831.4	291.2
5	3126.1 ⁸⁵³	4.2500 ¹¹⁶⁰	60.45 ^{1.65}		145.9	262.7	504.8	908.6	461.0	829.9	293.0
6	3213.3 ⁸⁷²	4.3689 ¹¹⁸⁹	62.14 ^{1.69}		146.9	264.5	504.1	907.3	460.2	828.5	294.8
	3213.3 ⁸⁹²	4.3689 ¹²⁰⁹	62.14 ^{1.72}								
7	3302.5	4.4898	63.86		148.0	266.4	503.3	906.2	459.4	827.2	296.6
8	3393.6 ⁹¹¹	4.6142 ¹²⁴⁴	65.63 ^{1.77}		149.0	268.2	502.6	904.8	458.7	825.7	298.4
9	3486.7 ⁹³¹	4.7408 ¹²⁶⁶	67.43 ^{1.80}		150.0	270.1	501.9	903.6	457.9	824.3	300.2
	3486.7 ⁹⁵²	4.7408 ¹²⁹³	67.43 ^{1.84}								
10	3581.0	4.8701	69.27		151.0	271.9	501.2	902.4	457.1	823.4	301.9
	3581.0 ⁹⁷³	4.8701 ¹³²¹	69.27 ^{1.88}								

Temperature, Degrees Cen- grade.	OF EXTER- NAL WORK.		Entropy of Liquid.	Entropy of Vaporization	VOLUME.		DENSITY.					
	Calories.	B.T.U.			Cubic Meters per Kilo.	Cubic Feet per Pound.	Weight, in Kilo- grams, of One Cubic Meter.	Weight, in Pounds, of One Cubic Foot.				
<i>t</i>	<i>Apru</i>	<i>Apru</i>	<i>θ</i>	$\frac{r}{T}$	<i>s</i>	<i>s</i>	<i>γ</i>	<i>γ</i>				
111	41.2	74.0	0.3418	1.3776	1.164	36	18.65	0.8591	274	0.05362	172	2
112	41.3	74.2	0.3445	1.3722	1.128	35	18.07	0.8865	284	0.05534	177	2
113	41.3	74.3	0.3471	1.3668	1.093	34	17.51	0.9149	294	0.05711	185	2
114	41.4	74.5	0.3498	1.3614	1.059	32	16.96	0.9443	294	0.05896	183	2
115	41.5	74.6	0.3524	1.3560	1.027	31	16.45	0.9737	303	0.06079	187	2
116	41.6	74.7	0.3550	1.3507	0.9961	300	15.96	1.0043	31	0.06266	194	2
117	41.6	74.9	0.3576	1.3455	0.9661	290	15.48	1.035	32	0.06460	202	2
118	41.7	75.0	0.3602	1.3403	0.9371	277	15.01	1.0673	33	0.06662	201	2
119	41.8	75.2	0.3628	1.3351	0.9094	272	14.57	1.1003	34	0.06863	211	2
120	41.9	75.3	0.3654	1.3299	0.8822	256	14.14	1.134	33	0.07074	215	2
121	41.9	75.4	0.3680	1.3247	0.8566	251	13.72	1.167	36	0.07289	219	2
122	42.0	75.6	0.3705	1.3195	0.8315	242	13.32	1.203	36	0.07508	226	2
123	42.1	75.7	0.3731	1.3144	0.8073	233	12.93	1.239	37	0.07734	228	2
124	42.2	75.9	0.3756	1.3093	0.7840	225	12.56	1.276	37	0.07962	234	2
125	42.3	76.0	0.3782	1.3042	0.7615	216	12.19	1.313	38	0.08196	243	2
126	42.3	76.1	0.3807	1.2992	0.7399	211	11.85	1.351	40	0.08439	249	2
127	42.4	76.3	0.3833	1.2942	0.7188	202	11.51	1.391	40	0.08688	249	2
128	42.5	76.4	0.3858	1.2892	0.6986	195	11.19	1.431	42	0.08937	254	2
129	42.6	76.6	0.3884	1.2842	0.6791	187	10.88	1.473	41	0.09191	270	2
130	42.6	76.7	0.3909	1.2792	0.6604	183	10.57	1.514	43	0.09461	257	2
131	42.7	76.8	0.3934	1.2743	0.6421	177	10.29	1.557	45	0.09718	282	2
132	42.8	77.0	0.3959	1.2694	0.6244	171	10.00	1.602	45	0.1000	28	2
133	42.9	77.1	0.3985	1.2645	0.6073	166	9.728	1.647	46	0.1028	29	2
134	43.0	77.3	0.4010	1.2596	0.5907	160	9.462	1.693	47	0.1057	29	2
135	43.0	77.4	0.4035	1.2547	0.5747	155	9.204	1.740	48	0.1086	30	2
136	43.1	77.5	0.4060	1.2499	0.5592	150	8.957	1.788	50	0.1116	31	2
137	43.2	77.7	0.4085	1.2451	0.5442	144	8.717	1.838	50	0.1147	31	2
138	43.3	77.8	0.4110	1.2403	0.5298	140	8.487	1.888	51	0.1178	32	2
139	43.3	78.0	0.4135	1.2356	0.5158	137	8.262	1.939	53	0.1210	33	2
140	43.4	78.1	0.4160	1.2309	0.5021	130	8.043	1.992	53	0.1243	33	2
141	43.5	78.2	0.4185	1.2262	0.4891	127	7.834	2.045	54	0.1276	34	2
142	43.6	78.3	0.4209	1.2215	0.4764	124	7.631	2.099	56	0.1310	35	2
143	43.6	78.5	0.4234	1.2168	0.4640	119	7.433	2.155	57	0.1345	36	2
144	43.7	78.6	0.4259	1.2121	0.4521	116	7.242	2.212	58	0.1381	36	2
145	43.8	78.7	0.4283	1.2075	0.4405	112	7.056	2.270	59	0.1417	37	2
146	43.9	78.8	0.4307	1.2029	0.4293	108	6.877	2.329	60	0.1454	38	2
147	44.0	79.0	0.4332	1.1983	0.4185	105	6.704	2.389	62	0.1492	38	2
148	44.0	79.1	0.4356	1.1937	0.4080	102	6.536	2.451	63	0.1530	39	2
149	44.1	79.3	0.4380	1.1892	0.3978	98	6.372	2.514	63	0.1569	40	3

Temperature Degrees grade.	Milli- meters of Mer- cury.	Kilo- grams per Square Centi- meter.	Pounds per Square Inch.	Calories	B.T.U.	Calories.	B.T.U.	Calories.	B.T.U.	Temperature Degrees F.
<i>t</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>q</i>	<i>q</i>	<i>r</i>	<i>r</i>	<i>p</i>	<i>p</i>	<i>t</i>
151	3679.1 ₉₉₃	5.0023 ₁₃₅₀	71.15 _{1.92}	152.1	273.8	500.6	900.9	456.3	821.4	303.8
152	3778.4 ₁₀₁₄	5.1373 ₁₃₇₈	73.07 _{1.96}	153.1	275.6	499.8	899.6	455.5	820.0	305.6
153	3879.8 ₁₀₃₅	5.2751 ₁₄₀₆	75.03 _{2.00}	154.1	277.4	499.1	898.4	454.7	818.5	307.4
154	3983.3 ₁₀₅₇	5.4157 ₁₄₃₅	77.03 _{2.04}	155.1	279.2	498.2	897.0	453.9	817.0	309.2
155	4089.0 ₁₀₇₉	5.5592 ₁₄₆₉	79.07 _{2.09}	156.2	281.1	497.6	895.7	453.1	815.6	311.0
156	4196.9 ₁₁₀₂	5.7061 ₁₄₉₇	81.16 _{2.13}	157.2	283.0	496.9	894.4	452.4	814.1	312.8
157	4307.1 ₁₁₂₄	5.8558 ₁₅₂₆	83.29 _{2.17}	158.2	284.8	496.1	893.0	451.5	812.7	314.6
158	4419.5 ₁₁₄₈	6.0084 ₁₅₆₁	85.46 _{2.22}	159.3	286.7	495.4	891.8	450.7	811.3	316.4
159	4534.3 ₁₁₇₁	6.1645 ₁₅₉₆	87.68 _{2.27}	160.3	288.5	494.7	890.4	449.9	809.8	318.2
160	4651.4 ₁₁₉₅	6.3241 ₁₆₂₄	89.95 _{2.31}	161.3	290.4	494.0	889.1	449.1	808.3	320.0
161	4770.9 ₁₂₁₈	6.4865 ₁₆₅₉	92.26 _{2.36}	162.3	292.2	493.2	887.8	448.2	806.9	321.8
162	4892.7 ₁₂₄₃	6.6524 ₁₆₈₈	94.62 _{2.40}	163.4	294.1	492.5	886.6	447.5	805.5	323.6
163	5017.1 ₁₂₇	6.8212 ₁₇₂₂	97.02 _{2.45}	164.4	295.9	491.8	885.2	446.8	804.1	325.4
164	5144.1 ₁₂₉	6.9934 ₁₇₅₈	99.47 _{2.50}	165.4	297.7	491.0	883.9	445.9	802.6	327.2
165	5273.1 ₁₃₂	7.1692 ₁₇₉₃	101.97 _{2.55}	166.5	299.6	490.3	882.7	445.1	801.3	329.0
166	5405.1 ₁₃₄	7.3485 ₁₈₂₁	104.52 _{2.59}	167.5	301.5	489.6	881.4	444.3	799.8	330.8
167	5539.1 ₁₃₇	7.5306 ₁₈₆₃	107.11 _{2.65}	168.5	303.3	488.9	880.1	443.6	798.5	332.6
168	5676.1 ₁₄₀	7.7169 ₁₉₀₅	109.76 _{2.71}	169.5	305.1	488.1	878.8	442.8	797.0	334.4
169	5816.1 ₁₄₃	7.9074 ₁₉₃₃	112.47 _{2.75}	170.6	307.0	487.4	877.4	442.0	795.6	336.2
170	5959.1 ₁₄₅	8.1007 ₁₉₈₃	115.22 _{2.82}	171.6	308.9	486.8	876.1	441.2	794.1	338.0
171	6104.1 ₁₄₇	8.2990 ₁₉₉₇	118.04 _{2.84}	172.6	310.7	486.1	874.9	440.4	792.8	339.8
172	6251.1 ₁₅₁	8.4987 ₂₀₅₃	120.88 _{2.92}	173.7	312.6	485.3	873.6	439.6	791.3	341.6
173	6402.1 ₁₅₃	8.7040 ₂₀₈₁	123.80 _{2.96}	174.7	314.5	484.6	872.3	438.9	790.0	343.4
174	6555.1 ₁₅₇	8.9121 ₂₁₃₀	126.76 _{3.03}	175.7	316.3	483.8	870.9	438.1	788.4	345.2
175	6712.1 ₁₅₉	9.1251 ₂₁₆₆	129.79 _{3.08}	176.8	318.2	483.1	869.6	437.2	787.0	347.0
176	6871.1 ₁₆₂	9.3417 ₂₂₀₀	132.87 _{3.13}	177.8	320.0	482.4	868.3	436.5	785.6	348.8
177	7033.1 ₁₆₅	9.5617 ₂₂₄₃	136.00 _{3.19}	178.8	321.8	481.6	867.0	435.7	784.2	350.6
178	7198.1 ₁₆₈	9.7860 ₂₂₈	139.19 _{3.25}	179.9	323.7	480.9	865.7	435.0	782.8	352.4
179	7366.1 ₁₇₁	10.014 ₂₃₃	142.44 _{3.31}	180.9	325.6	480.2	864.4	434.1	781.4	354.2
180	7537.1 ₁₇₅	10.247 ₂₃₈	145.75 _{3.38}	181.9	327.5	479.5	863.0	433.4	779.9	356.0
181	7712.1 ₁₇₇	10.485 ₂₄₁	149.13 _{3.43}	183.0	329.3	478.7	861.7	432.5	778.5	357.8
182	7889.1 ₁₈₁	10.726 ₂₄₆	152.56 _{3.50}	184.0	331.2	478.0	860.4	431.8	777.1	359.6
183	8070.1 ₁₈₃	10.972 ₂₄₉	156.06 _{3.54}	185.0	333.0	477.2	859.1	430.9	775.7	361.4
184	8253.1 ₁₈₇	11.221 ₂₅₅	159.60 _{3.62}	186.1	334.9	476.5	857.8	430.2	774.3	363.2
185	8440.1 ₁₉₁	11.476 ₂₅₉	163.22 _{3.69}	187.1	336.8	475.8	856.5	429.3	772.9	365.0
186	8631.1 ₁₉₃	11.735 ₂₆₂	166.91 _{3.73}	188.1	338.6	475.1	855.2	428.6	771.5	366.8
187	8824.1 ₁₉₇	11.997 ₂₆₈	170.64 _{3.81}	189.2	340.5	474.3	853.8	427.7	770.0	368.6
188	9021.1 ₂₀₁	12.265 ₂₇₃	174.45 _{3.89}	190.2	342.4	473.6	852.6	427.0	768.7	370.4
189	9222.1 ₂₀₄	12.538 ₂₇₇	178.34 _{3.93}	191.2	344.2	492.9	851.2	426.3	767.2	372.2
190	9426.1 ₂₀₇	12.815 ₂₈₂	182.27 _{4.01}	192.3	346.1	472.2	849.9	425.5	765.8	374.0

Temperatur Degrees grade.	CAL WORK.		Entropy of Liquid.	Entropy of Vaporiza- $\frac{r}{T}$	Cubic Meters per Kilo.	Cubic Feet per Pound.	Weight, in Kilo- grams, of One Cubic Meter.	Weight, in Pounds, of One Cubic Foot.
t	Calories. Apu	B.T.U. Apu	θ		s	s	γ	γ
151	44.3	79.5	0.4429	1.1802	0.3783 ₉₃	6.060 ₁₄₉	2.643 ₆₇	0.1650 ₄₂
152	44.3	79.7	0.4453	1.1757	0.3690 ₉₀	5.911 ₁₄₄	2.710 ₆₈	0.1692 ₄₂
153	44.4	79.8	0.4477	1.1713	0.3600 ₈₈	5.767 ₁₄₁	2.778 ₆₉	0.1734 ₄₃
154	44.5	80.0	0.4501	1.1769	0.3512 ₈₅	5.626 ₁₃₆	2.847 ₇₁	0.1777 ₄₄
155	44.6	80.1	0.4525	1.1625	0.3427 ₈₂	5.490 ₁₃₂	2.918 ₇₂	0.1821 ₄₅
156	44.6	80.2	0.4549	1.1681	0.3345 ₈₀	5.358 ₁₂₈	2.990 ₇₃	0.1866 ₄₆
157	44.7	80.4	0.4573	1.1637	0.3265 ₇₈	5.230 ₁₂₅	3.063 ₇₅	0.1912 ₄₇
158	44.8	80.5	0.4596	1.1593	0.3187 ₇₆	5.105 ₁₂₂	3.138 ₇₆	0.1959 ₄₈
159	44.8	80.7	0.4620	1.1560	0.3111 ₇₃	4.983 ₁₁₆	3.214 ₇₈	0.0071 ₄₈
160	44.9	80.8	0.4644	1.1407	0.3038 ₇₁	4.867 ₁₁₄	3.292 ₇₈	0.2055 ₄₉
161	45.0	80.9	0.4668	1.1364	0.2967 ₆₉	4.753 ₁₁₁	3.370 ₈₁	0.2104 ₅₀
162	45.1	81.0	0.4692	1.1321	0.2898 ₆₇	4.642 ₁₀₇	3.451 ₈₁	0.2154 ₅₁
163	45.1	81.2	0.4715	1.1278	0.2831 ₆₆	4.535 ₁₀₆	3.532 ₈₅	0.2205 ₅₃
164	45.2	81.3	0.4739	1.1236	0.2765 ₆₃	4.429 ₁₀₀	3.617 ₈₄	0.2258 ₅₂
165	45.3	81.4	0.4763	1.1194	0.2702 ₆₂	4.329 ₁₀₀	3.701 ₈₇	0.2310 ₅₅
166	45.3	81.5	0.4786	1.1152	0.2640 ₆₀	4.229 ₉₆	3.788 ₈₈	0.2365 ₅₅
167	45.4	81.6	0.4810	1.1110	0.2580 ₅₈	4.133 ₉₃	3.876 ₈₉	0.2420 ₅₅
168	45.4	81.8	0.4833	1.1068	0.2522 ₅₇	4.040 ₉₁	3.965 ₉₂	0.2475 ₅₇
169	45.5	81.9	0.4857	1.1027	0.2465 ₅₅	3.949 ₈₈	4.057 ₉₂	0.2532 ₅₈
170	45.6	82.0	0.4880	1.0986	0.2410 ₅₃	3.861 ₈₅	4.149 ₉₄	0.2590 ₅₈
171	45.7	82.1	0.4903	1.0945	0.2357 ₅₂	3.776 ₈₄	4.243 ₉₅	0.2648 ₆₁
172	45.7	82.2	0.4926	1.0904	0.2305 ₅₁	3.692 ₈₁	4.338 ₁₀₁	0.2709 ₆₀
173	45.8	82.4	0.4949	1.0863	0.2254 ₅₀	3.611 ₈₀	4.437 ₁₀₀	0.2769 ₆₄
174	45.8	82.5	0.4972	1.0823	0.2204 ₄₈	3.531 ₇₆	4.537 ₁₀₁	0.2833 ₆₂
175	45.9	82.6	0.4995	1.0783	0.2156 ₄₇	3.455 ₇₆	4.638 ₁₀₄	0.2895 ₆₅
176	46.0	82.7	0.5018	1.0743	0.2109 ₄₅	3.379 ₇₃	4.742 ₁₀₃	0.2960 ₆₅
177	46.0	82.8	0.5041	1.0703	0.2064 ₄₄	3.306 ₇₀	4.845 ₁₀₅	0.3025 ₆₇
178	46.1	82.9	0.5064	1.0663	0.2020 ₄₄	3.236 ₇₁	4.950 ₁₁₁	0.3092 ₆₈
179	46.2	83.0	0.5087	1.0623	0.1976 ₄₂	3.165 ₆₇	5.061 ₁₁₀	0.3160 ₆₈
180	46.2	83.1	0.5110	1.0583	0.1934 ₄₁	3.098 ₆₆	5.171 ₁₁₂	0.3228 ₇₀
181	46.3	83.2	0.5123	1.0544	0.1893 ₄₀	3.032 ₆₄	5.283 ₁₁₄	0.3298 ₇₁
182	46.3	83.3	0.5146	1.0505	0.1853 ₃₉	2.968 ₆₂	5.397 ₁₁₆	0.3369 ₇₂
183	46.4	83.4	0.5168	1.0466	0.1814 ₃₈	2.906 ₆₁	5.513 ₁₁₈	0.3441 ₇₄
184	46.4	83.5	0.5191	1.0427	0.1776 ₃₇	2.845 ₆₀	5.631 ₁₁₉	0.3515 ₇₆
185	46.5	83.6	0.5224	1.0389	0.1739 ₃₆	2.785 ₅₇	5.750 ₁₂₂	0.3591 ₇₅
186	46.5	83.7	0.5246	1.0350	0.1703 ₃₆	2.728 ₅₈	5.872 ₁₂₇	0.3666 ₇₉
187	46.6	83.8	0.5269	1.0311	0.1667 ₃₄	2.670 ₅₄	5.999 ₁₂₅	0.3745 ₇₈
188	46.6	83.9	0.5291	1.0272	0.1633 ₃₃	2.616 ₅₃	6.124 ₁₂₆	0.3823 ₇₉
189	46.7	84.0	0.5314	1.0234	0.1600 ₃₃	2.563 ₅₃	6.250 ₁₃₂	0.3902 ₈₂
190	46.8	84.1	0.5336	1.0196	0.1567 ₃₂	2.510 ₅₁	5.382 ₁₃₃	0.3984 ₈₃

SATURATED STEAM—TABLE III.

Temperature, Degrees Centi- grade. <i>t</i>	PRESSURE			HEAT OF THE LIQUID		HEAT OF VAPORIZATION.		HEAT EQUIVA- LENT OF IN- TERNAL WORK.		Temperature, Degrees Fahr. <i>t</i>
	Milli- meters of Mer- cury. <i>p</i>	Kilo- grams per Square Centi- meter. <i>p</i>	Pounds per Square Inch. <i>p</i>	Calories. <i>q</i>	B.T.U. <i>q</i>	Calories. <i>r</i>	B.T.U. <i>r</i>	Calories. <i>p</i>	B.T.U. <i>p</i>	
191	9633 ₂₁₁	13.097 ₂₈₇	186.28 _{4.08}	193.3	347.9	471.5	848.6	424.8	764.4	375.8
192	9844 ₂₁₄	13.384 ₂₉₁	190.36 _{4.14}	194.4	349.8	470.7	847.1	423.9	763.0	377.6
193	10058 ₂₁₈	13.675 ₂₉₇	194.50 _{4.22}	195.4	351.7	470.0	845.9	423.2	761.6	379.4
194	10276 ₂₂₂	13.972 ₃₀₁	198.72 _{4.29}	196.4	353.5	469.2	844.7	422.4	760.3	381.2
195	10498 ₂₂₆	14.273 ₃₀₈	203.01 _{4.37}	197.5	355.4	468.5	843.4	421.6	758.9	383.0
196	10724 ₂₂₉	14.581 ₃₁₁	207.38 _{4.43}	198.5	357.3	467.8	842.0	420.8	757.4	384.8
197	10953 ₂₃₃	14.892 ₃₁₇	211.81 _{4.50}	199.5	359.2	467.1	840.7	420.0	756.1	386.6
198	11186 ₂₃₈	15.209 ₃₂₄	216.31 _{4.61}	200.6	361.1	466.3	839.4	419.2	754.6	388.4
199	11424 ₂₄₀	15.533 ₃₂₆	220.92 _{4.64}	201.6	362.9	465.6	838.0	418.4	753.2	390.2
200	11664 ₂₄₅	15.859 ₃₃₄	225.56 _{4.74}	202.7	364.8	464.8	836.7	417.6	751.8	392.0
201	11909 ₂₄₉	16.193 ₃₃₇	230.30 _{4.81}	203.7	366.7	464.1	835.5	417.0	750.5	393.8
202	12158 ₂₅₃	16.530 ₃₄₅	235.11 _{4.89}	204.7	368.5	463.4	834.1	416.3	749.1	395.6
203	12411 ₂₅₇	16.875 ₃₄₈	240.00 _{4.97}	205.8	370.4	462.6	832.7	415.4	747.7	397.4
204	12668 ₂₆₂	17.223 ₃₅₇	244.97 _{5.06}	206.8	372.3	461.9	831.4	414.7	746.4	399.2
205	12930 ₂₆₅	17.580 ₃₅₉	250.03 _{5.12}	207.9	374.1	461.1	830.1	413.8	745.0	401.0
206	13195 ₂₇₀	17.939 ₃₆₈	255.15 _{5.22}	208.9	376.0	460.4	828.8	413.1	743.6	402.8
207	13465 ₂₇₄	18.307 ₃₇₂	260.37 _{5.30}	210.0	377.9	459.6	827.5	412.3	742.2	404.6
208	13739 ₂₇₉	18.679 ₃₇₉	265.67 _{5.40}	211.0	379.8	458.9	826.1	411.6	740.9	406.4
209	14018 ₂₈₃	19.058 ₃₈₄	271.07 _{5.41}	212.0	381.6	458.1	824.8	410.7	739.5	408.2
210	14301 ₂₈₇	19.442 ₃₉₀	276.54 _{5.55}	213.1	383.5	457.5	823.5	410.1	738.1	410.0
211	14588 ₂₉₂	19.832 ₃₉₈	282.09 _{5.64}	214.1	385.4	456.7	822.1	409.3	736.7	411.8
212	14880 ₂₉₇	20.230 ₄₀₄	287.73 _{5.75}	215.2	387.3	456.0	820.8	408.6	735.3	413.6
213	15177 ₃₀₁	20.634 ₄₀₉	293.48 _{5.82}	216.2	389.2	455.3	819.5	407.9	734.1	415.4
214	15478 ₃₀₇	21.043 ₄₁₈	299.30 _{5.94}	217.3	391.1	454.5	818.2	407.0	732.7	417.2
215	15785 ₃₁₁	21.461 ₄₂₃	305.24 _{6.01}	218.3	392.9	453.8	816.8	406.3	731.3	419.0
216	16096 ₃₁₅	21.884 ₄₂₈	311.25 _{6.09}	219.3	394.8	453.1	815.4	405.5	729.9	420.8
217	16411 ₃₂₁	22.312 ₄₃₆	317.34 _{6.21}	220.4	396.7	452.3	814.1	404.8	728.5	422.6
218	16732 ₃₂₆	22.748 ₄₄₃	323.55 _{6.30}	221.4	398.5	451.6	812.7	404.0	727.2	424.4
219	17058 ₃₃₁	23.191 ₄₅₁	329.85 _{6.41}	222.5	400.4	450.8	811.4	403.3	725.8	426.2
220	17389 ₃₃₁	23.642	336.26	223.5	402.3	450.1	810.1	402.5	724.6	428.0

SATURATED STEAM—TABLE III.

Temperature, Degrees Centi- grade. <i>t</i>	HEAT EQUIVALENT OF EXTER- NAL WORK.		Entropy of the Liquid. <i>θ</i>	Entropy of Vaporization. $\frac{r}{T}$	SPECIFIC VOLUME.		DENSITY.	
	Calories. <i>Apv</i>	B.T.U. <i>Apv</i>			Cubic Meters per Kilo. <i>s</i>	Cubic Feet per Pound. <i>s</i>	Weight, in Kilo- grams, of One Cubic Meter. <i>γ</i>	Weight, in Pounds, of One Cubic Foot. <i>γ</i>
191	46.8	84.2	0.5358	1.0158	0.1535 ₃₁	2.459 ₅₀	6.515 ₁₃₄	0.4067
192	46.9	84.3	0.5381	1.0121	0.1504 ₃₀	2.409 ₄₈	6.649 ₁₃₅	0.4151
193	46.9	84.3	0.5303	1.0084	0.1474 ₃₀	2.361 ₄₈	6.784 ₁₄₁	0.4233
194	46.9	84.4	0.5326	1.0047	0.1444 ₂₉	2.313 ₄₆	6.925 ₁₄₂	0.4323
195	47.0	84.5	0.5448	1.0010	0.1415 ₂₈	2.267 ₄₅	7.067 ₁₄₃	0.4411
196	47.0	84.6	0.5470	0.9973	0.1387 ₂₇	2.222 ₄₃	7.210 ₁₄₃	0.4500
197	47.1	84.7	0.5492	0.9936	0.1360 ₂₇	2.179 ₄₄	7.353 ₁₄₉	0.4588
198	47.1	84.7	0.5514	0.9899	0.1333 ₂₇	2.135 ₄₃	7.502 ₁₅₅	0.4681
199	47.2	84.8	0.5536	0.9862	0.1306 ₂₆	2.092 ₄₁	7.657 ₁₅₆	0.4780
200	47.2	84.9	0.5558	0.9826	0.1280 ₂₆	2.051 ₄₂	7.813 ₁₆₁	0.4877
201	47.2	84.9	0.5580	0.9790	0.1254 ₂₄	2.009 ₃₉	7.974 ₁₅₆	0.4977
202	47.3	85.0	0.5602	0.9754	0.1230 ₂₄	1.970 ₃₈	8.130 ₁₆₂	0.5077
203	47.3	85.0	0.5624	0.9718	0.1206 ₂₃	1.932 ₃₇	8.292 ₁₆₁	0.5177
204	47.3	85.1	0.5646	0.9682	0.1183 ₂₃	1.895 ₃₇	8.453 ₁₆₈	0.5277
205	47.4	85.1	0.5668	0.9646	0.1160 ₂₃	1.858 ₃₇	8.621 ₁₇₄	0.5381
206	47.4	85.2	0.5690	0.9610	0.1137 ₂₂	1.821 ₃₅	8.795 ₁₇₄	0.5491
207	47.4	85.2	0.5712	0.9575	0.1115 ₂₁	1.786 ₃₄	8.969 ₁₇₂	0.5599
208	47.4	85.3	0.5733	0.9540	0.1094 ₂₁	1.752 ₃₃	9.141 ₁₇₉	0.5707
209	47.5	85.3	0.5755	0.9505	0.1073 ₂₁	1.719 ₃₃	9.320 ₁₈₆	0.5811
210	47.5	85.4	0.5777	0.9470	0.1052 ₂₀	1.686 ₃₃	9.506 ₁₈₄	0.5933
211	47.5	85.4	0.5799	0.9435	0.1032 ₁₉	1.653 ₃₀	9.690 ₁₈₂	0.6055
212	47.5	85.4	0.5820	0.9400	0.1013 ₁₉	1.622 ₃₀	9.872 ₁₈₈	0.6166
213	47.5	85.5	0.5842	0.9366	0.0994 ₁₉	1.592 ₃₀	10.06 ₂₀	0.6281
214	47.6	85.5	0.5863	0.9332	0.0975 ₁₉	1.562 ₃₀	10.26 ₂₀	0.6400
215	47.6	85.5	0.5885	0.9298	0.0956 ₁₈	1.532 ₂₉	10.46 ₂₀	0.6522
216	47.6	85.5	0.5906	0.9264	0.0938 ₁₈	1.503 ₂₉	10.66 ₂₁	0.6651
217	47.6	85.5	0.5927	0.9230	0.0920 ₁₇	1.474 ₂₈	10.87 ₂₀	0.6781
218	47.6	85.6	0.5948	0.9196	0.0903 ₁₇	1.446 ₂₇	11.07 ₂₂	0.6911
219	47.6	85.6	0.5969	0.9162	0.0886 ₁₇	1.419 ₂₇	11.29 ₂₃	0.7041
220	47.6	85.6	0.5991	0.9129	0.0869 ₁₇	1.392 ₂₇	11.51 ₂₃	0.7181

TABLE IV.
SATURATED VAPOR OF ETHER.
FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density, in Kilos, of One Cubic Meter.	Temperature, Degrees Centi- grade.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>P</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	<i>t</i>
0	184.39	0.00	94.00	94.00	86.45	7.55	0.0000	1.278	0.728	0
10	286.83	5.32	98.44	93.12	85.37	7.75	0.01909	0.8440	1.185	10
20	432.78	10.70	102.78	92.08	84.13	7.95	0.03772	0.5741	1.742	20
30	634.80	16.14	107.00	90.86	82.72	8.14	0.05593	0.4013	2.492	30
40	907.04	21.63	111.11	89.48	81.15	8.33	0.07374	0.2877	3.746	40
50	1264.8	27.19	115.11	87.92	79.41	8.51	0.09117	0.2108	4.744	50
60	1725.0	32.80	119.00	86.20	77.53	8.67	0.1083	0.1580	6.329	60
70	2304.9	38.48	122.78	84.30	75.49	8.81	0.1250	0.1203	8.313	70
80	3022.8	44.21	126.44	82.23	73.32	8.91	0.1415	0.0932	10.73	80
90	3898.3	50.00	130.00	80.00	71.03	8.97	0.1576	0.0731	13.68	90
100	4953.3	55.86	133.44	77.58	68.62	8.96	0.1735	0.0577	17.33	100
110	6214.6	61.77	136.78	75.01	66.13	8.88	0.1891	0.0459	21.79	110
120	7719.2	67.74	140.00	72.26	63.57	8.69	0.2045	0.0364	27.47	120

TABLE V.
SATURATED VAPOR OF ALCOHOL.
FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in Kilos, of One Cubic Meter.	Temperature, Degrees Centi- grade.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	<i>t</i>
0	12.70	0.00	236.5	236.50	223.38	13.12	0.0000	32.21	0.03105	0
10	24.23	5.59	244.4	238.81	225.29	13.52	0.01996	17.39	0.05750	10
20	44.46	11.42	252.0	240.58	226.56	14.02	0.04003	9.847	0.1016	20
30	78.52	17.49	258.0	240.51	226.03	14.48	0.06029	5.753	0.1738	30
40	133.69	23.71	262.0	238.29	223.44	14.85	0.08073	3.465	0.2886	40
50	219.90	30.21	264.0	233.79	218.59	15.10	0.1014	2.143	0.4666	50
60	350.21	37.37	265.0	227.63	212.38	15.25	0.1223	1.359	0.7358	60
70	541.15	44.58	265.2	220.62	205.28	15.34	0.1435	0.8855	1.129	70
80	812.91	52.11	265.2	213.09	197.69	15.40	0.1650	0.5921	1.689	80
90	1189.3	59.97	266.0	206.03	190.54	15.49	0.1868	0.4073	2.455	90
100	1697.6	68.18	267.3	199.12	183.54	15.58	0.2090	0.2874	3.479	100
110	2367.6	76.74	269.6	192.86	177.15	15.71	0.2315	0.2083	4.801	110
120	3231.7	85.67	272.5	186.83	170.97	15.86	0.2544	0.1544	6.477	120
130	4323.0	94.98	276.0	181.02	164.99	16.03	0.2776	0.1170	8.547	130
140	5674.6	104.70	280.5	175.80	159.55	16.25	0.3013	0.0905	11.05	140
150	7318.4	114.82	285.3	170.48	154.03	16.45	0.3254	0.0714	14.01	150

TABLE VI.
SATURATED VAPOR OF CHLOROFORM.
FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in Kilos, of One Cubic Meter.	Temperature, Degrees Centi- grade.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	<i>t</i>
0	59.72	0.00	67.00	67.00	62.45	4.55	0.00000	2.377	0.4207	0
10	100.47	2.33	68.38	66.04	61.29	4.75	0.00836	1.475	0.6780	10
20	160.47	4.67	69.75	65.08	60.14	4.94	0.01646	0.9601	1.042	20
30	247.51	7.02	71.12	64.10	59.00	5.10	0.02432	0.6437	1.554	30
40	369.26	9.37	72.50	63.13	57.87	5.26	0.03196	0.4449	2.248	40
50	535.05	11.74	73.87	62.13	56.73	5.40	0.03940	0.3155	3.170	50
60	755.44	14.12	75.25	61.13	55.60	5.53	0.04664	0.2291	4.356	60
70	1042.1	16.51	76.62	60.11	54.45	5.66	0.05369	0.1700	5.88	70
80	1407.6	18.91	78.00	59.09	53.31	5.78	0.06057	0.1286	7.78	80
90	1865.2	21.32	79.37	58.05	52.16	5.89	0.06729	0.0991	10.09	90
100	2428.5	23.74	80.75	57.01	51.01	6.00	0.07386	0.0777	12.87	100
110	3111.0	26.17	82.12	55.95	49.84	6.11	0.08027	0.0618	16.18	110
120	3925.7	28.61	83.50	54.89	48.67	6.22	0.08655	0.0500	20.00	120
130	4885.1	31.06	84.87	53.81	47.48	6.33	0.09270	0.0410	24.39	130
140	6000.2	33.52	86.25	52.73	46.30	6.43	0.09872	0.0340	29.4	140
150	7280.6	35.99	87.62	51.63	45.10	6.53	0.10462	0.0286	35.0	150
160	8734.2	38.47	89.00	50.53	43.90	6.63	0.11041	0.0243	41.2	160

PROPERTIES OF STEAM AND OTHER VAPORS.

TABLE VII.

SATURATED VAPOR OF CARBON BISULPHIDE.

FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Dens Weight, in Kilos, of
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>
0	127.91	0.00	90.00	90.00	82.76	7.24	0.00000	1.766	0.0
10	198.46	2.36	91.42	89.06	81.58	7.48	0.00847	1.177	0.0
20	298.03	4.74	92.76	88.02	80.31	7.71	0.01670	0.8071	1.0
30	434.62	7.13	94.01	86.88	78.97	7.91	0.02472	0.5684	1.0
40	617.53	9.54	95.18	85.64	77.54	8.10	0.03252	0.4098	2.0
50	857.07	11.96	96.27	84.31	76.04	8.27	0.04013	0.3017	3.0
60	1164.5	14.41	97.28	82.87	74.45	8.42	0.04756	0.2264	4.0
70	1552.1	16.86	98.20	81.34	72.78	8.56	0.05482	0.1726	5.0
80	2032.5	19.34	99.04	79.70	71.03	8.67	0.06192	0.1338	7.0
90	2619.1	21.83	99.80	77.97	69.20	8.77	0.06886	0.1052	9.0
100	3325.2	24.34	100.48	76.14	67.29	8.85	0.07566	0.0837	11.0
110	4164.1	26.86	101.07	74.21	65.31	8.90	0.08233	0.0674	14.0
120	5148.8	29.40	101.58	72.18	63.24	8.94	0.08886	0.0549	18.0
130	6291.6	31.96	102.01	70.05	61.09	8.96	0.09527	0.0452	22.0
140	7604.0	34.53	102.36	67.83	58.88	8.95	0.10157	0.0375	26.0
150	9095.9	37.12	102.62	65.50	56.58	8.92	0.10775	0.0314	31.0

TABLE VIII.
SATURATED VAPOR OF CARBON TETRACHLORIDE.
FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in Kilos, of One Cubic Meter.	Temperature, Degrees Centi- grade.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	<i>t</i>
0	32.95	0.00	52.00	52.00	48.54	3.46	0.00000	3.272	0.3056	0
10	55.97	1.99	53.44	51.45	47.85	3.60	0.00714	2.005	0.4987	10
20	90.99	3.99	54.86	50.87	47.13	3.74	0.01409	1.283	0.7794	20
30	142.27	6.02	56.23	50.21	46.33	3.88	0.02087	0.8510	1.175	30
40	214.81	8.06	57.58	49.52	45.51	4.01	0.02749	0.5831	1.715	40
50	314.38	10.12	58.88	48.76	44.62	4.14	0.03396	0.4109	2.434	50
60	447.43	12.20	60.16	47.96	43.69	4.25	0.04028	0.2969	3.368	60
70	621.15	14.30	61.40	47.10	42.75	4.35	0.04648	0.2192	4.562	70
80	843.29	16.42	62.60	46.18	41.74	4.44	0.04255	0.1650	6.061	80
90	1122.3	18.55	63.77	45.22	40.50	4.72	0.05849	0.1263	7.92	90
100	1467.1	20.70	64.90	44.20	39.62	4.58	0.06432	0.0980	10.20	100
110	1887.4	22.87	66.01	43.14	38.52	4.62	0.07006	0.0770	12.99	110
120	2393.7	25.06	67.07	42.01	37.36	4.65	0.07569	0.0611	16.37	120
130	2996.9	27.27	68.10	40.83	36.18	4.65	0.08122	0.0490	20.41	130
140	3709.0	29.49	69.10	39.61	34.95	4.63	0.08666	0.0395	25.3	140
150	4543.1	31.73	70.07	38.34	33.75	4.59	0.09201	0.0321	31.2	150
160	5513.1	34.00	71.00	37.00	32.47	4.53	0.09729	0.0262	38.2	160

TABLE IX.
SATURATED VAPOR OF ACETON.
FRENCH UNITS.

Temperature, Degrees Centi- grade.	Pressure, Millimeters of Mercury.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density.	Temperature.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>p</i>	<i>A_{pu}</i>	<i>θ</i>	<i>s</i>	Weight, in Kilos, of One Cubic Meter. <i>γ</i>	
0	63.33	0.00	140.50	140.50	131.82	8.68	0.00000	4.275	0.2339	
10	110.32	5.10	144.11	139.01	129.51	9.50	0.01832	2.686	0.3723	
20	180.08	10.29	147.62	137.33	127.16	10.17	0.03627	1.758	0.5688	
30	280.05	15.55	151.03	135.48	124.83	10.65	0.05389	1.187	0.8425	
40	419.35	20.89	154.33	133.44	121.39	11.05	0.07119	0.8227	1.215	
50	608.81	26.31	157.53	131.22	119.86	11.36	0.08820	0.5830	1.715	
60	860.96	31.81	160.63	128.82	117.22	11.60	0.1049	0.4215	2.372	
70	1189.9	37.39	163.62	126.23	114.43	11.80	0.1214	0.3106	3.220	
80	1611.1	43.05	166.51	123.46	111.49	11.97	0.1376	0.2328	4.296	
90	2140.8	48.79	169.30	120.51	108.41	12.10	0.1536	0.1773	5.640	
100	2796.2	54.61	171.98	117.37	105.17	12.20	0.1694	0.1372	7.289	
110	3594.3	60.50	174.56	114.06	101.78	12.28	0.1850	0.1076	9.294	
120	4552.0	66.48	177.04	110.56	98.23	12.33	0.2004	0.0856	11.68	
130	5684.9	72.54	179.42	106.88	94.53	12.35	0.2156	0.0689	14.51	
140	7007.6	78.67	181.69	103.02	90.67	12.35	0.2306	0.0561	17.83	

TABLE X.
SATURATED VAPOR OF AMMONIA.
ENGLISH UNITS.

Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density. Weight, in pounds, of One Cubic Foot.	Temperature, Degrees Fahrenheit.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>ρ</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	<i>t</i>
-40	9.93	-79	519	598	550	48	-0.1737	26.1	0.0383	-40
-35	11.53	-74	520	594	546	48	-0.1607	22.6	0.0442	-35
-30	13.36	-68	522	590	541	49	-0.1482	19.7	0.0507	-30
-25	15.40	-63	523	586	537	49	-0.1354	17.3	0.0580	-25
-20	17.70	-57	525	582	532	50	-0.1229	15.2	0.0660	-20
-15	20.25	-52	526	578	528	50	-0.1102	13.3	0.0750	-15
-10	23.10	-46	528	574	524	50	-0.0982	11.8	0.0848	-10
-5	26.25	-41	529	570	519	51	-0.0859	10.5	0.0956	-5
0	29.74	-35	531	566	515	51	-0.0738	9.32	0.108	0
5	33.58	-30	532	562	511	51	-0.0619	8.31	0.120	5
10	37.80	-24	534	558	506	52	-0.0501	7.44	0.134	10
15	42.43	-19	535	554	502	52	-0.0386	6.68	0.150	15
20	47.49	-13	537	550	497	53	-0.0271	6.02	0.166	20
25	53.01	-8	538	546	493	53	-0.0157	5.43	0.184	25
30	59.01	-2	540	542	489	53	-0.0044	4.92	0.203	30
35	65.53	3	541	538	484	54	0.0067	4.46	0.225	35
40	72.59	9	543	534	480	54	0.0177	4.06	0.247	40
45	80.21	14	544	530	475	55	0.0287	3.70	0.270	45
50	88.44	20	546	526	471	55	0.0395	3.38	0.296	50
55	97.30	25	547	522	467	55	0.0502	3.09	0.323	55
60	106.82	31	549	518	462	56	0.0608	2.84	0.352	60
65	117.04	36	550	514	458	56	0.0713	2.61	0.383	65
70	127.98	42	552	510	454	56	0.0817	2.40	0.416	70
75	139.67	47	553	506	449	57	0.0921	2.22	0.451	75
80	152.15	53	555	502	445	57	0.1023	2.05	0.488	80
85	165.47	58	556	498	441	57	0.1124	1.90	0.527	85
90	179.64	64	558	494	436	58	0.1224	1.76	0.568	90
95	194.70	69	559	490	432	58	0.1324	1.63	0.612	95
100	210.70	75	561	486	428	58	0.1423	1.52	0.657	100

TABLE XI.
SATURATED VAPOR OF SULPHUR DIOXIDE.

ENGLISH UNITS.

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	Heat of the Liquid.	Total Heat.	Heat of Vaporization.	Heat equivalent of Internal Work.	Heat equivalent of External Work.	Entropy of the Liquid.	Specific Volume.	Density, in pounds, of One Cubic Foot.	Temperature.
<i>t</i>	<i>p</i>	<i>q</i>	<i>H</i>	<i>r</i>	<i>p</i>	<i>Apu</i>	<i>θ</i>	<i>s</i>	<i>γ</i>	
-40	3.14	-29	166	195	182	13	-0.0632	23.0	0.0434	-
-35	3.70	-27	167	194	180	14	-0.0584	19.7	0.0507	-
-30	4.34	-25	168	193	179	14	-0.0539	17.0	0.0590	-
-25	5.07	-23	168	191	177	14	-0.0492	14.7	0.0682	-
-20	5.90	-21	169	190	176	14	-0.0447	12.7	0.0785	-
-15	6.83	-19	170	189	175	14	-0.0401	11.1	0.0901	-
-10	7.88	-17	170	187	173	14	-0.0357	9.73	0.103	-
-5	9.05	-15	171	186	172	14	-0.0312	8.56	0.117	-
0	10.35	-13	172	185	170	15	-0.0268	7.54	0.133	-
5	11.81	-11	172	183	168	15	-0.0225	6.67	0.450	-
10	13.41	-9	173	182	167	15	-0.0182	5.93	0.169	-
15	15.19	-7	174	181	166	15	-0.0140	5.29	0.189	-
20	17.15	-5	174	179	164	15	-0.0098	4.72	0.212	-
25	19.30	-3	175	178	163	15	-0.0057	4.23	0.236	-
30	21.66	-1	176	177	162	15	-0.0016	3.81	0.263	-
35	24.24	1	176	175	160	15	0.0024	3.43	0.291	-
40	27.06	3	177	174	158	16	0.0064	3.10	0.322	-
45	30.12	5	177	172	156	16	0.0104	2.81	0.356	-
50	33.45	7	178	171	155	16	0.0144	2.58	0.390	-
55	37.07	9	179	170	154	16	0.0182	2.32	0.430	-
60	40.98	11	179	168	152	16	0.0221	2.11	0.473	-
65	45.20	13	180	167	151	16	0.0259	1.94	0.516	-
70	49.75	15	181	166	150	16	0.0297	1.78	0.563	-
75	54.64	17	181	164	148	16	0.0334	1.63	0.614	-
80	59.90	19	182	163	146	17	0.0372	1.50	0.668	-
85	65.54	21	183	162	145	17	0.0409	1.38	0.725	-
90	71.57	23	183	160	143	17	0.0445	1.27	0.786	-
95	78.02	25	184	159	142	17	0.0482	1.18	0.849	-
100	84.90	27	185	158	141	17	0.0518	1.09	0.917	-

TABLE XII.

SPECIFIC GRAVITY AND SPECIFIC VOLUME OF LIQUIDS.

Name of Liquid.	Specific Gravity, compared with Water at 4° C.	Specific Volume. Cubic Meters per Kilo.
Alcohol, C_2H_6O	0.80625 [Mendelejeff, 1869] . .	0.001240
Ether, $C_4H_{10}O$	0.736 [Kopp, 1860]	0.001358
Chloroform	1.527 [Thorpe, 1880]	0.000655
Carbon bisulphide, CS_2	1.2922 [Thorpe, 1880]	0.000774
Carbon tetrachloride, CCl_4	1.6320 [Thorpe, 1880]	0.000613
Aceton, C_3H_6O	0.81 [Zander, 1882]	0.00123
Sulphur Dioxide, SO_2	1.4336 [Andréeff, 1859]	0.0006981
Ammonia, NH_3	0.6364 [Andréeff, 1859]	0.001571

TABLE XIII.

VOLUME OF WATER.

Vol. at 4° C. = 1.

[Rossetti, 1871] and [Hirn, 1867].

Temper- ature.	Volume.	Temper- ature.	Volume.	Temper- ature.	Volume.	Temper- ature.	Volume.
10	1.000253	60	1.01691	110	1.0512	160	1.1018
20	1.001744	70	1.02256	120	1.0599	170	1.1139
30	1.00425	80	1.02887	130	1.0694	180	1.1268
40	1.00770	90	1.03567	140	1.0795	190	1.1403
50	1.01195	100	1.04312	150	1.0903	200	1.1544

TABLE XIV.

CONVERSION TABLE.

INCHES OF MERCURY AND POUNDS PER SQUARE INCH.

		1	2	3	4	5	6	7	8	9
0	0.00	0.05	0.10	0.15	0.20	0.25	0.29	0.34	0.39	0.44
1	0.49	0.54	0.59	0.64	0.69	0.74	0.79	0.84	0.88	0.93
2	0.98	1.03	1.08	1.13	1.18	1.23	1.28	1.33	1.38	1.42
3	1.47	1.52	1.57	1.62	1.67	1.72	1.77	1.82	1.87	1.91
4	1.96	2.01	2.06	2.11	2.16	2.21	2.26	2.31	2.36	2.41
5	2.46	2.51	2.55	2.60	2.65	2.70	2.75	2.80	2.85	2.90
6	2.95	3.00	3.05	3.09	3.14	3.19	3.24	3.29	3.34	3.39
7	3.44	3.49	3.54	3.59	3.63	3.68	3.73	3.78	3.83	3.88
8	3.93	3.98	4.03	4.08	4.13	4.18	4.22	4.27	4.32	4.37
9	4.42	4.47	4.52	4.57	4.62	4.67	4.72	4.76	4.81	4.86
10	4.91	4.96	5.01	5.06	5.11	5.16	5.21	5.26	5.30	5.35
11	5.40	5.45	5.50	5.55	5.60	5.65	5.70	5.75	5.80	5.85
12	5.89	5.94	5.99	6.04	6.09	6.14	6.19	6.24	6.29	6.34
13	6.39	6.43	6.48	6.53	6.58	6.63	6.68	6.73	6.78	6.83
14	6.88	6.93	6.97	7.02	7.07	7.12	7.17	7.22	7.27	7.32
15	7.37	7.42	7.47	7.52	7.56	7.61	7.66	7.71	7.76	7.81
16	7.86	7.91	7.96	8.01	8.06	8.10	8.15	8.20	8.25	8.30
17	8.35	8.40	8.45	8.50	8.55	8.60	8.64	8.69	8.74	8.79
18	8.84	8.89	8.94	8.99	9.04	9.09	9.14	9.19	9.23	9.28
19	9.33	9.38	9.43	9.48	9.53	9.58	9.63	9.68	9.73	9.77
20	9.82	9.87	9.92	9.97	10.02	10.07	10.12	10.17	10.22	10.27
21	10.32	10.37	10.41	10.46	10.51	10.56	10.61	10.66	10.71	10.76
22	10.81	10.86	10.90	10.95	11.00	11.05	11.10	11.15	11.20	11.25
23	11.30	11.35	11.40	11.44	11.49	11.54	11.59	11.64	11.69	11.74
24	11.79	11.84	11.89	11.94	11.99	12.03	12.08	12.13	12.18	12.23
25	12.28	12.33	12.38	12.43	12.48	12.53	12.57	12.62	12.67	12.72
26	12.77	12.82	12.87	12.92	12.97	13.02	13.07	13.11	13.16	13.21
27	13.26	13.31	13.36	13.41	13.46	13.51	13.56	13.61	13.66	13.70
28	13.75	13.80	13.85	13.90	13.95	14.00	14.05	14.10	14.15	14.20
29	14.24	14.29	14.34	14.39	14.44	14.49	14.54	14.59	14.64	14.69
30	14.74	14.78	14.83	14.88	14.93	14.98	15.03	15.08	15.13	15.18

TABLE XV.

CORRECTIVE FACTORS FOR SUPERHEATED STEAM.

Values of the factor $\frac{150,300,000}{T^3} - 0.0833$.

Temperature.		Value. of Factor.	Temperature.		Value. of Factor.	Temperature.		Value of Factor.
Fahr.	Abs.		Fahr.	Abs.		Fahr.	Abs.	
200	659.5	0.441	335	794.5	0.216	470	929.5	0.104
205	664.5	0.429	340	799.5	0.211	475	934.5	0.101
210	669.5	0.417	345	804.5	0.205	480	939.5	0.098
215	674.5	0.405	350	809.5	0.200	485	944.5	0.095
220	679.5	0.395	355	814.5	0.195	490	949.5	0.092
225	684.5	0.385	360	819.5	0.190	495	954.5	0.090
230	689.5	0.375	365	824.5	0.185	500	959.5	0.087
235	694.5	0.365	370	829.5	0.180	505	964.5	0.084
240	699.5	0.356	375	834.5	0.175	510	969.5	0.082
245	704.5	0.347	380	839.5	0.171	515	974.5	0.079
250	709.5	0.338	385	844.5	0.166	520	979.5	0.077
255	714.5	0.329	390	849.5	0.162	525	984.5	0.074
260	719.5	0.320	395	854.5	0.158	530	989.5	0.072
265	724.5	0.312	400	859.5	0.153	535	994.5	0.070
270	729.5	0.304	405	864.5	0.149	540	999.5	0.067
275	734.5	0.296	410	869.5	0.145	545	1004.5	0.065
280	739.5	0.288	415	874.5	0.141	550	1009.5	0.063
285	744.5	0.281	420	879.5	0.138	555	1014.5	0.061
290	749.5	0.274	425	884.5	0.134	560	1019.5	0.059
295	754.5	0.267	430	889.5	0.131	565	1024.5	0.057
300	759.5	0.260	435	894.5	0.127	570	1029.5	0.055
305	764.5	0.253	440	899.5	0.123	575	1034.5	0.053
310	769.5	0.247	445	904.5	0.120	580	1039.5	0.051
315	774.5	0.240	450	909.5	0.117	585	1044.5	0.049
320	779.5	0.234	455	914.5	0.113	590	1049.5	0.047
325	784.5	0.228	460	919.5	0.110	595	1054.5	0.045
330	789.5	0.222	465	924.5	0.107			

TEMPERATURE-ENTROPY TABLE.

THIS table gives the properties of moist and of superheated steam at each degree of temperature Fahrenheit, and for each hundredth of a unit of entropy.

At the left hand of each page are given the temperatures and the corresponding pressures of saturated steam; the lines across the tables are, therefore, constant pressure lines, and for moist steam are also constant temperature lines.

The table is divided by a broken line which corresponds roughly to the saturation line; properties to the left of that line are for moist steam and to the right are for superheated steam.

The triple-columns are headed with the entropy, and are constant entropy lines; they can be used for solving problems concerning adiabatic operations in a closed cylinder, and similar problems.

At any point in the table, determined by the entropy and the pressure (or the corresponding temperature of saturated steam), there are given three properties:—

(1) *The quality*, which for moist steam is the proportion of a pound that is steam, and for superheated steam is the number of degrees of superheating.

(2) *The heat contents*, or the number of thermal units required to change a pound of water at freezing into steam at the given pressure and with the given quality.

(3) *The specific volume* in cubic feet per pound.

For examples, solved by aid of the table, see page 30.

TEMPERATURE-ENTROPY TABLE.

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
420	308.6	3	1212	1.515	17	1221	1.555	32	1230	1.596	47	1239	1.645
419	305.2	2	1211	1.526	16	1220	1.572	31	1229	1.610	46	1238	1.659
418	301.9	1	1210	1.540	15	1219	1.580	30	1228	1.625	44	1237	1.672
417	298.7	0	1209	1.555	14	1218	1.595	29	1227	1.640	43	1236	1.686
416	295.4	9996	1208.5	1.581	13	1217	1.610	28	1227	1.654	42	1235	1.701
415	292.2	9988	1207.5	1.597	12	1216	1.623	27	1226	1.669	41	1234	1.715
414	289.0	9981	1206.6	1.613	11	1215	1.638	26	1225	1.682	40	1233	1.730
413	285.9	9974	1205.7	1.629	10	1214	1.650	25	1224	1.697	39	1232	1.744
412	282.7	9965	1204.7	1.644	9	1213	1.663	24	1223	1.711	38	1231	1.759
411	279.6	9958	1203.8	1.661	8	1212	1.678	23	1222	1.726	37	1230	1.774
410	276.5	9949	1202.8	1.677	7	1212	1.695	21	1220	1.740	36	1229	1.790
409	273.5	9942	1201.9	1.694	6	1211	1.710	20	1219	1.758	35	1228	1.805
408	270.5	9934	1201.0	1.711	5	1210	1.725	19	1218	1.772	34	1227	1.820
407	267.5	9926	1200.0	1.728	4	1209	1.740	18	1217	1.788	32	1226	1.837
406	264.5	9920	1199.2	1.746	3	1208	1.755	17	1217	1.803	31	1225	1.853
405	261.6	9912	1198.2	1.763	2	1207	1.771	16	1216	1.820	30	1224	1.869
404	258.6	9904	1197.3	1.781	1	1206	1.787	15	1215	1.836	29	1223	1.886
403	255.7	9896	1196.3	1.799	0	1205	1.805	14	1214	1.853	28	1222	1.902
402	252.9	9888	1195.3	1.818	9992	1204.0	1.836	13	1213	1.869	27	1221	1.920
401	250.0	9881	1194.3	1.836	9985	1202.9	1.856	12	1212	1.885	26	1220	1.936
400	247.2	9874	1193.4	1.854	9977	1202.0	1.875	11	1211	1.902	25	1219	1.953
399	244.4	9865	1192.4	1.873	9968	1201.0	1.884	9	1209	1.920	24	1218	1.971
398	241.7	9858	1191.5	1.892	9961	1200.0	1.913	8	1208	1.938	22	1217	1.990
397	238.9	9851	1190.6	1.912	9954	1199.1	1.932	7	1208	1.946	21	1216	2.007
396	236.2	9843	1189.6	1.931	9945	1198.1	1.951	6	1207	1.964	20	1215	2.025
395	233.5	9835	1188.6	1.951	9938	1197.2	1.971	5	1206	1.992	19	1214	2.044
394	230.8	9828	1187.7	1.971	9930	1196.3	1.991	4	1205	2.010	18	1213	2.063
393	228.2	9819	1186.7	1.992	9921	1195.3	2.012	3	1204	2.030	17	1212	2.082
392	225.6	9813	1185.8	2.012	9914	1194.3	2.033	2	1203	2.048	16	1211	2.100
391	223.0	9804	1184.8	2.033	9905	1193.3	2.054	1	1202	2.067	15	1210	2.120
390	220.4	9796	1183.9	2.054	9898	1192.3	2.075	9999	1200.9	2.096	14	1209	2.140
389	217.8	9789	1182.9	2.075	9890	1191.4	2.097	9991	1199.9	2.118	12	1208	2.160
388	215.3	9781	1181.9	2.097	9881	1190.4	2.119	9983	1198.9	2.141	11	1207	2.180
387	212.8	9773	1180.9	2.119	9874	1189.4	2.141	9975	1197.8	2.163	10	1206	2.200
386	210.3	9765	1179.9	2.141	9865	1188.4	2.163	9966	1196.8	2.185	9	1205	2.220
385	207.9	9757	1179.0	2.163	9857	1187.4	2.185	9958	1195.8	2.208	8	1204	2.241
384	205.4	9750	1178.0	2.186	9851	1186.5	2.208	9951	1194.8	2.231	7	1203	2.262
383	203.0	9744	1177.1	2.209	9843	1185.5	2.232	9943	1193.9	2.254	6	1202	2.284
382	200.6	9735	1176.1	2.232	9835	1184.5	2.254	9934	1192.9	2.277	5	1201	2.306
381	198.3	9727	1175.1	2.255	9827	1183.5	2.278	9926	1191.9	2.301	4	1200	2.328

Temperature Degrees F.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.
420	308.6	64	1249	1.686	79	1258	1.728	97	1268	1.778	114	1278
419	305.2	62	1247	1.701	78	1257	1.743	96	1267	1.792	113	1277
418	301.9	61	1246	1.716	77	1256	1.758	95	1266	1.808	112	1276
417	298.7	60	1245	1.731	76	1255	1.773	94	1265	1.822	110	1275
416	295.4	59	1245	1.745	75	1254	1.788	92	1264	1.838	109	1274
415	292.2	58	1244	1.760	73	1253	1.803	91	1263	1.854	108	1273
414	289.0	57	1243	1.776	72	1252	1.819	90	1262	1.870	106	1272
413	285.9	55	1242	1.791	71	1251	1.834	88	1260	1.886	105	1271
412	282.7	54	1241	1.806	70	1250	1.851	87	1259	1.902	104	1270
411	279.6	53	1240	1.821	68	1249	1.867	86	1258	1.919	102	1268
410	276.5	52	1239	1.837	67	1248	1.883	85	1257	1.934	101	1267
409	273.5	51	1238	1.853	66	1247	1.900	83	1256	1.950	100	1266
408	270.5	49	1237	1.869	65	1246	1.916	82	1255	1.967	98	1265
407	267.5	48	1236	1.885	63	1245	1.933	81	1254	1.984	97	1264
406	264.5	47	1235	1.902	62	1244	1.950	79	1253	2.002	96	1263
405	261.6	46	1234	1.918	61	1243	1.967	78	1252	2.020	94	1262
404	258.6	45	1233	1.934	60	1242	1.984	77	1251	2.037	93	1261
403	255.7	43	1232	1.950	59	1241	2.002	75	1250	2.055	92	1260
402	252.9	42	1231	1.967	57	1240	2.019	74	1249	2.073	90	1258
401	250.0	41	1230	1.984	56	1239	2.037	73	1248	2.091	89	1257
400	247.2	40	1229	2.002	55	1238	2.054	72	1247	2.110	88	1256
399	244.4	39	1228	2.020	54	1237	2.073	70	1246	2.129	86	1255
398	241.7	38	1227	2.038	53	1236	2.092	69	1245	2.147	85	1254
397	238.9	36	1225	2.057	51	1234	2.110	68	1244	2.165	84	1253
396	236.2	35	1224	2.075	50	1233	2.139	66	1242	2.184	82	1252
395	233.5	34	1223	2.094	49	1232	2.148	65	1241	2.204	81	1251
394	230.8	33	1222	2.113	48	1231	2.167	64	1240	2.224	80	1250
393	228.2	32	1221	2.131	46	1230	2.186	63	1239	2.244	78	1248
392	225.6	30	1220	2.150	45	1229	2.205	61	1238	2.265	77	1247
391	223.0	29	1219	2.170	44	1228	2.225	60	1237	2.286	76	1246
390	220.4	28	1218	2.190	43	1227	2.245	59	1236	2.306	74	1245
389	217.8	27	1217	2.210	42	1226	2.266	57	1235	2.327	73	1244
388	215.3	26	1216	2.230	40	1225	2.287	56	1234	2.349	72	1243
387	212.8	24	1215	2.250	39	1224	2.308	55	1233	2.370	70	1242
386	210.3	23	1214	2.271	38	1223	2.330	54	1232	2.391	69	1241
385	207.9	22	1213	2.293	37	1222	2.351	52	1231	2.413	68	1240
384	205.4	21	1212	2.315	35	1221	2.372	51	1230	2.434	66	1239
383	203.0	20	1211	2.338	34	1220	2.394	50	1229	2.458	65	1238
382	200.6	18	1210	2.360	33	1219	2.418	48	1228	2.480	64	1237
381	198.3	17	1209	2.383	32	1218	2.440	47	1227	2.502	62	1235
380	195.9	16	1208	2.405	30	1217	2.463	46	1226	2.526	61	1234
379	193.6	15	1207	2.429	29	1216	2.486	44	1224	2.550	60	1233
378	191.3	14	1206	2.452	28	1215	2.509	43	1223	2.575	58	1232
377	189.0	12	1205	2.476	27	1214	2.533	42	1222	2.599	57	1231
376	186.7	11	1204	2.500	26	1213	2.556	41	1221	2.624	55	1229
375	184.5	10	1203	2.524	24	1211	2.580	39	1220	2.648	54	1228
374	182.3	9	1202	2.548	23	1210	2.605	38	1219	2.672	52	1227
373	180.1	8	1201	2.572	22	1209	2.630	37	1218	2.699	51	1226

	Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			
			Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	
372	177.9	9658	1166.3	2.481	9756	1174.6	2.504	9853	1182.9	2.531	9951	1191.1
371	175.7	9650	1165.3	2.508	9748	1173.6	2.532	9845	1181.9	2.558	9943	1189.9
370	173.6	9642	1164.3	2.535	9739	1172.6	2.560	9836	1180.9	2.585	9934	1188.7
369	171.5	9634	1163.3	2.563	9731	1171.6	2.588	9828	1179.9	2.613	9925	1187.5
368	169.4	9626	1162.3	2.591	9723	1170.6	2.616	9820	1178.9	2.642	9917	1186.3
367	167.3	9618	1161.3	2.618	9715	1169.5	2.643	9811	1177.8	2.670	9908	1185.1
366	165.3	9611	1160.3	2.647	9708	1168.6	2.673	9804	1176.8	2.699	9901	1183.9
365	163.2	9603	1159.3	2.676	9700	1167.6	2.701	9796	1175.8	2.728	9892	1182.7
364	161.2	9595	1158.3	2.705	9691	1166.5	2.731	9787	1174.8	2.758	9883	1181.5
363	159.2	9587	1157.3	2.734	9683	1165.5	2.762	9779	1173.7	2.788	9875	1180.3
362	157.2	9580	1156.3	2.765	9676	1164.5	2.792	9772	1172.7	2.819	9867	1179.1
361	155.3	9573	1155.3	2.795	9669	1163.5	2.822	9764	1171.7	2.850	9860	1177.9
360	153.3	9565	1154.3	2.827	9661	1162.5	2.855	9756	1170.7	2.882	9852	1176.7
359	151.4	9558	1153.3	2.858	9653	1161.5	2.886	9748	1169.7	2.914	9843	1175.5
358	149.5	9550	1152.3	2.890	9645	1160.5	2.918	9740	1168.6	2.946	9834	1174.3
357	147.6	9542	1151.3	2.921	9637	1159.5	2.951	9732	1167.6	2.979	9826	1173.1
356	145.8	9535	1150.3	2.955	9629	1158.4	2.984	9724	1166.6	3.012	9818	1171.9
355	143.9	9526	1149.3	2.988	9621	1157.4	3.018	9715	1165.6	3.047	9809	1170.7
354	142.1	9518	1148.3	3.022	9612	1156.4	3.052	9706	1164.6	3.081	9801	1169.5
353	140.3	9511	1147.3	3.055	9605	1155.4	3.086	9699	1163.5	3.115	9793	1168.3
352	138.5	9503	1146.2	3.090	9597	1154.3	3.121	9690	1162.5	3.150	9784	1167.1
351	136.7	9495	1145.2	3.125	9588	1153.3	3.155	9682	1161.4	3.186	9775	1165.9
350	135.0	9487	1144.2	3.160	9581	1152.3	3.191	9674	1160.4	3.222	9767	1164.7
349	133.2	9479	1143.2	3.195	9572	1151.3	3.228	9665	1159.3	3.259	9758	1163.5
348	131.5	9471	1142.2	3.233	9564	1150.3	3.265	9657	1158.3	3.297	9750	1162.3
347	129.8	9465	1141.2	3.271	9556	1149.3	3.303	9659	1157.3	3.335	9742	1161.1
346	128.1	9456	1140.2	3.308	9548	1148.2	3.340	9641	1156.2	3.372	9733	1159.9
345	126.4	9448	1139.1	3.346	9540	1147.2	3.378	9633	1155.2	3.411	9725	1158.7
344	124.8	9441	1138.1	3.384	9533	1146.2	3.417	9625	1154.2	3.451	9717	1157.5
343	123.2	9432	1137.1	3.424	9524	1145.1	3.457	9616	1153.1	3.491	9708	1156.3
342	121.5	9425	1136.1	3.464	9516	1144.1	3.497	9608	1152.1	3.531	9700	1155.1
341	119.9	9418	1135.0	3.504	9509	1143.0	3.538	9601	1151.0	3.572	9692	1153.9
340	118.4	9410	1134.0	3.545	9501	1142.0	3.579	9593	1150.0	3.614	9684	1152.7
339	116.8	9403	1133.0	3.586	9494	1140.9	3.621	9585	1148.9	3.656	9676	1151.5
338	115.2	9394	1131.9	3.628	9485	1139.9	3.663	9576	1147.9	3.698	9667	1150.3
337	113.7	9387	1130.9	3.671	9477	1138.8	3.707	9568	1146.8	3.742	9659	1149.1
336	112.2	9378	1129.8	3.715	9469	1137.8	3.751	9559	1145.7	3.787	9650	1147.9
335	110.7	9371	1128.8	3.759	9461	1136.8	3.795	9552	1144.7	3.831	9642	1146.7
334	109.2	9363	1127.8	3.803	9453	1135.8	3.840	9544	1143.7	3.877	9634	1145.5
333	107.7	9355	1126.7	3.849	9445	1134.7	3.886	9535	1142.6	3.923	9625	1144.3
332	106.3	9347	1125.7	3.894	9437	1133.6	3.931	9527	1141.5	3.960	9617	1143.1
331	104.8	9339	1124.7	3.941	9429	1132.6	3.979	9519	1140.5	4.017	9609	1141.9
330	103.4	9332	1123.7	3.988	9421	1131.5	4.027	9511	1139.4	4.065	9600	1140.7
329	102.0	9323	1122.6	4.037	9413	1130.5	4.076	9502	1138.4	4.114	9591	1139.5
328	100.6	9317	1121.6	4.086	9406	1129.5	4.125	9495	1137.4	4.164	9584	1138.3
327	99.2	9309	1120.5	4.136	9398	1128.4	4.176	9487	1136.3	4.213	9575	1137.1

Temperature Degrees	Pressure, P. per Squa. Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.
372	177.9	7	1200	2.596	21	1208	2.654	35	1217	2.724	50	1225
371	175.7	5	1198	2.620	19	1207	2.680	34	1216	2.751	49	1224
370	173.6	4	1197	2.646	18	1206	2.706	33	1215	2.778	47	1223
369	171.5	3	1196	2.672	17	1205	2.732	32	1214	2.802	46	1222
368	169.4	2	1195	2.700	16	1204	2.760	30	1213	2.831	45	1221
367	167.3	1	1194	2.725	14	1203	2.786	29	1212	2.859	43	1219
366	165.3	9997	1193.3	2.752	13	1202	2.814	28	1211	2.886	42	1218
365	163.2	9988	1192.3	2.782	12	1201	2.842	26	1209	2.913	41	1217
364	161.2	9979	1191.2	2.812	11	1200	2.870	25	1208	2.941	39	1216
363	159.2	9971	1190.2	2.843	10	1199	2.899	24	1207	2.970	38	1215
362	157.2	9963	1189.2	2.874	8	1198	2.928	23	1206	2.999	37	1214
361	155.3	9955	1188.1	2.906	7	1197	2.957	21	1205	3.027	35	1213
360	153.3	9946	1187.1	2.938	6	1196	2.986	20	1204	3.055	34	1212
359	151.4	9938	1186.1	2.971	5	1195	3.017	19	1203	3.086	33	1211
358	149.5	9929	1185.0	3.004	3	1193	3.047	17	1202	3.118	31	1209
357	147.6	9921	1183.9	3.037	2	1192	3.079	16	1201	3.149	30	1208
356	145.8	9913	1182.9	3.070	1	1191	3.108	15	1200	3.181	29	1207
355	143.9	9904	1181.9	3.105	9998	1190.0	3.135	13	1198	3.211	27	1206
354	142.1	9895	1180.8	3.141	9989	1189.0	3.170	12	1197	3.243	26	1205
353	140.3	9887	1179.8	3.176	9980	1187.9	3.206	11	1196	3.275	25	1204
352	138.5	9878	1178.7	3.211	9971	1186.8	3.242	10	1195	3.308	23	1203
351	136.7	9869	1177.6	3.247	9962	1185.7	3.278	8	1194	3.342	22	1202
350	135.0	9861	1176.6	3.284	9954	1184.7	3.315	7	1193	3.377	21	1201
349	133.2	9851	1175.5	3.321	9945	1183.6	3.352	6	1192	3.411	19	1199
348	131.5	9843	1174.5	3.359	9936	1182.6	3.391	4	1190	3.447	18	1198
347	129.8	9835	1173.5	3.398	9928	1181.6	3.430	3	1189	3.481	17	1197
346	128.1	9826	1172.4	3.436	9919	1180.5	3.468	2	1188	3.518	15	1196
345	126.4	9817	1171.3	3.475	9910	1179.4	3.508	0	1187	3.552	14	1195
344	124.8	9809	1170.3	3.516	9901	1178.3	3.549	9994	1186.3	3.582	13	1194
343	123.2	9800	1169.2	3.556	9892	1177.2	3.590	9984	1185.2	3.623	11	1193
342	121.5	9792	1168.1	3.597	9884	1176.1	3.631	9975	1184.1	3.665	10	1192
341	119.9	9785	1167.1	3.639	9876	1175.1	3.673	9968	1183.0	3.707	9	1191
340	118.4	9776	1166.0	3.681	9867	1174.0	3.716	9958	1182.0	3.750	7	1189
339	116.8	9767	1164.9	3.724	9859	1172.9	3.759	9950	1180.9	3.794	6	1188
338	115.2	9758	1163.8	3.768	9849	1171.8	3.803	9940	1179.8	3.838	5	1187
337	113.7	9750	1162.7	3.812	9841	1170.7	3.848	9932	1178.7	3.883	3	1186
336	112.2	9741	1161.6	3.857	9831	1169.6	3.893	9922	1177.6	3.929	2	1185
335	110.7	9732	1160.6	3.903	9823	1168.5	3.939	9913	1176.5	3.975	1	1184
334	109.2	9724	1159.6	3.949	9814	1167.5	3.986	9904	1175.4	4.022	9995	1183.4
333	107.7	9715	1158.5	3.996	9805	1166.4	4.033	9895	1174.3	4.070	9985	1182.3
332	106.3	9707	1157.4	4.043	9796	1165.3	4.080	9886	1173.2	4.118	9976	1181.1
331	104.8	9698	1156.3	4.092	9788	1164.2	4.130	9878	1172.1	4.167	9967	1180.0
330	103.4	9690	1155.2	4.140	9779	1163.1	4.179	9869	1171.0	4.217	9958	1178.9
329	102.0	9680	1154.1	4.192	9770	1162.1	4.229	9859	1170.0	4.268	9949	1177.8
328	100.6	9673	1153.1	4.243	9762	1161.0	4.281	9851	1168.9	4.320	9940	1176.7
327	99.2	9665	1152.0	4.294	9754	1159.9	4.333	9843	1167.8	4.372	9932	1175.6
326	97.8	9655	1150.9	4.346	9744	1158.8	4.384	9833	1166.6	4.424	9921	1174.5

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	P. 32			P. 33			P. 34			P. 35		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	9284	1117.3	4.288	9372	1125.2	4.329	9461	1133.0	4.370	9549	1140.8	4.411
323	93.8	9276	1116.3	4.340	9364	1124.1	4.382	9452	1131.9	4.423	9541	1139.8	4.464
322	92.5	9268	1115.2	4.395	9356	1123.1	4.437	9444	1130.9	4.479	9532	1138.7	4.520
321	91.2	9262	1114.2	4.449	9349	1122.0	4.492	9437	1129.8	4.534	9525	1137.6	4.576
320	90.0	9255	1113.2	4.505	9342	1121.0	4.548	9430	1128.8	4.591	9518	1136.6	4.633
319	88.7	9246	1112.1	4.560	9333	1119.9	4.603	9421	1127.7	4.646	9508	1135.5	4.690
318	87.4	9238	1111.1	4.617	9325	1118.8	4.661	9413	1126.6	4.705	9500	1134.4	4.748
317	86.2	9230	1110.0	4.675	9317	1117.8	4.719	9405	1125.5	4.763	9492	1133.3	4.808
316	85.0	9222	1108.9	4.733	9308	1116.6	4.778	9395	1124.4	4.823	9482	1132.1	4.867
315	83.8	9215	1107.9	4.793	9301	1115.6	4.839	9388	1123.4	4.884	9475	1131.1	4.929
314	82.6	9207	1106.8	4.855	9293	1114.6	4.900	9380	1122.3	4.946	9466	1130.0	4.992
313	81.4	9199	1105.8	4.916	9285	1113.5	4.962	9372	1121.2	5.008	9458	1128.9	5.054
312	80.2	9191	1104.7	4.979	9277	1112.4	5.025	9363	1120.1	5.072	9449	1127.8	5.119
311	79.1	9183	1103.6	5.042	9269	1111.3	5.090	9355	1119.0	5.137	9441	1126.7	5.184
310	77.9	9175	1102.5	5.106	9261	1110.2	5.154	9347	1117.9	5.201	9432	1125.6	5.249
309	76.8	9167	1101.5	5.171	9253	1109.2	5.220	9338	1116.8	5.268	9424	1124.5	5.317
308	75.7	9159	1100.4	5.238	9244	1108.1	5.287	9330	1115.7	5.336	9415	1123.4	5.385
307	74.6	9151	1099.3	5.307	9236	1107.0	5.356	9322	1114.6	5.406	9407	1122.3	5.455
306	73.5	9144	1098.3	5.376	9229	1106.0	5.426	9314	1113.6	5.476	9399	1121.3	5.526
305	72.4	9135	1097.1	5.444	9220	1104.8	5.495	9305	1112.4	5.546	9390	1120.1	5.596
304	71.4	9127	1096.0	5.515	9211	1103.7	5.567	9296	1111.3	5.618	9381	1118.9	5.669
303	70.3	9120	1095.0	5.588	9204	1102.7	5.639	9289	1110.3	5.691	9373	1117.9	5.743
302	69.3	9111	1093.9	5.662	9196	1101.6	5.714	9280	1109.2	5.767	9365	1116.8	5.819
301	68.2	9104	1092.8	5.737	9188	1100.4	5.790	9273	1108.0	5.843	9357	1115.6	5.896
300	67.2	9096	1091.7	5.812	9180	1099.3	5.865	9264	1106.9	5.918	9348	1114.5	5.973
299	66.2	9089	1090.7	5.890	9173	1098.3	5.944	9257	1105.9	5.998	9341	1113.5	6.053
298	65.2	9081	1089.6	5.968	9164	1097.2	6.023	9248	1104.8	6.078	9332	1112.3	6.133
297	64.3	9072	1088.5	6.048	9156	1096.1	6.102	9240	1103.7	6.159	9323	1111.2	6.215
296	63.3	9064	1087.4	6.128	9148	1095.0	6.185	9231	1102.5	6.241	9314	1110.0	6.297
295	62.3	9057	1086.3	6.212	9140	1093.9	6.268	9223	1101.4	6.325	9306	1108.9	6.382
294	61.4	9049	1085.2	6.296	9132	1092.8	6.353	9215	1100.3	6.411	9298	1107.8	6.469
293	60.5	9041	1084.1	6.382	9124	1091.7	6.439	9207	1099.2	6.498	9290	1106.7	6.556
292	59.5	9033	1083.1	6.469	9116	1090.6	6.527	9198	1098.1	6.586	9281	1105.6	6.645
291	58.6	9026	1082.0	6.556	9108	1089.5	6.615	9191	1097.0	6.675	9273	1104.5	6.735
290	57.7	9017	1080.9	6.645	9100	1088.4	6.705	9182	1095.9	6.765	9264	1103.4	6.826
289	56.8	9010	1079.8	6.737	9092	1087.3	6.797	9174	1094.8	6.859	9256	1102.2	6.920
288	56.0	9001	1078.7	6.830	9083	1086.2	6.891	9165	1093.6	6.953	9246	1101.1	7.015
287	55.1	8993	1077.6	6.924	9075	1085.1	6.986	9157	1092.5	7.049	9238	1100.0	7.112
286	54.2	8986	1076.5	7.020	9067	1084.0	7.083	9149	1091.4	7.146	9230	1098.9	7.210
285	53.4	8978	1075.4	7.118	9060	1082.9	7.188	9141	1090.3	7.246	9222	1097.7	7.311
284	52.6	8969	1074.3	7.216	9050	1081.7	7.281	9131	1089.1	7.345	9213	1096.5	7.411
283	51.7	8961	1073.2	7.316	9042	1080.6	7.382	9123	1088.0	7.447	9204	1095.4	7.514
282	50.9	8954	1072.1	7.420	9035	1079.5	7.487	9115	1086.9	7.553	9196	1094.3	7.620
281	50.1	8947	1071.0	7.526	9028	1078.4	7.594	9109	1085.8	7.661	9189	1093.2	7.729
280	49.33	8939	1069.9	7.633	9020	1077.3	7.701	9101	1084.7	7.769	9181	1092.1	7.838
279	48.55	8930	1068.8	7.739	9010	1076.2	7.809	9091	1083.6	7.877	9171	1090.9	7.947
278	47.77	8922	1067.7	7.850	9002	1075.0	7.921	9083	1082.4	7.940	9163	1089.8	8.017

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	F. 300.			F. 350.			F. 400.			F. 450.			F. 500.		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	9637	1148.7	4.452	9726	1156.5	4.491	9814	1164.3	4.532	9903	1172.2	4.573			
323	93.8	9629	1147.6	4.505	9717	1155.4	4.546	9805	1163.2	4.587	9893	1171.1	4.628			
322	92.5	9620	1146.5	4.562	9708	1154.3	4.603	9796	1162.1	4.645	9885	1169.9	4.686			
321	91.2	9613	1145.4	4.618	9701	1153.2	4.659	9889	1161.0	4.702	9877	1168.8	4.744			
320	90.0	9605	1144.4	4.676	9693	1152.2	4.718	9781	1160.0	4.760	9868	1167.8	4.803			
319	88.0	9596	1143.2	4.733	9683	1151.0	4.776	9770	1158.8	4.818	9858	1166.6	4.861			
318	87.4	9587	1142.2	4.792	9675	1149.9	4.835	9762	1157.7	4.878	9849	1165.5	4.922			
317	86.2	9579	1141.0	4.852	9666	1148.8	4.896	9753	1156.6	4.939	9840	1164.4	4.983			
316	85.0	9569	1139.9	4.912	9656	1147.6	4.957	9743	1155.4	5.000	9830	1163.1	5.045			
315	83.8	9562	1138.9	4.974	9648	1146.6	5.019	9735	1154.3	5.063	9822	1162.1	5.108			
314	82.6	9553	1137.8	5.037	9640	1145.5	5.083	9726	1153.2	5.128	9813	1161.0	5.173			
313	81.4	9544	1136.7	5.101	9631	1144.4	5.147	9717	1152.1	5.192	9804	1159.8	5.238			
312	80.2	9536	1135.5	5.165	9622	1143.2	5.212	9708	1151.0	5.258	9794	1158.7	5.305			
311	79.1	9527	1134.4	5.231	9613	1142.1	5.279	9699	1149.8	5.325	9785	1157.5	5.372			
310	77.9	9518	1133.3	5.297	9604	1141.0	5.345	9690	1148.7	5.391	9776	1156.4	5.439			
309	76.8	9510	1132.2	5.364	9595	1139.9	5.413	9681	1147.6	5.461	9767	1155.3	5.508			
308	75.7	9501	1131.1	5.434	9586	1138.8	5.482	9672	1146.4	5.531	9757	1154.1	5.579			
307	74.6	9492	1130.0	5.505	9577	1137.6	5.554	9663	1145.3	5.603	9748	1153.0	5.652			
306	73.5	9484	1128.9	5.576	9569	1136.6	5.626	9655	1144.2	5.676	9740	1151.9	5.725			
305	72.4	9474	1127.7	5.647	9559	1135.3	5.697	9644	1143.0	5.748	9729	1150.6	5.798			
304	71.4	9466	1126.6	5.720	9551	1134.2	5.771	9635	1141.8	5.823	9720	1149.5	5.873			
303	70.3	9458	1125.5	5.795	9542	1133.2	5.847	9627	1140.8	5.899	9712	1148.4	5.949			
302	69.3	9449	1124.4	5.872	9534	1132.0	5.924	9618	1139.6	5.977	9702	1147.2	6.028			
301	68.2	9441	1123.2	5.949	9525	1130.8	6.002	9610	1138.5	6.055	9694	1146.1	6.107			
300	67.2	9432	1122.1	6.026	9516	1129.7	6.080	9600	1137.3	6.134	9685	1144.9	6.187			
299	66.2	9424	1121.1	6.107	9508	1128.6	6.161	9592	1136.2	6.216	9676	1143.8	6.270			
298	65.2	9416	1119.9	6.188	9499	1127.5	6.243	9583	1135.0	6.298	9667	1142.6	6.353			
297	64.3	9407	1118.8	6.270	9490	1126.4	6.326	9574	1133.9	6.382	9657	1141.5	6.437			
296	63.3	9398	1117.6	6.353	9481	1125.2	6.410	9564	1132.7	6.466	9648	1140.3	6.523			
295	62.3	9390	1116.5	6.439	9473	1124.1	6.497	9556	1131.6	6.554	9639	1139.1	6.611			
294	61.4	9381	1115.4	6.526	9464	1122.9	6.584	9547	1130.5	6.642	9630	1138.0	6.699			
293	60.5	9373	1114.3	6.614	9456	1121.8	6.673	9538	1129.4	6.731	9621	1136.9	6.790			
292	59.5	9364	1113.1	6.704	9446	1120.6	6.764	9529	1128.2	6.823	9611	1135.7	6.880			
291	58.6	9355	1112.0	6.795	9438	1119.5	6.855	9520	1127.1	6.915	9603	1134.6	6.975			
290	57.7	9347	1110.9	6.887	9429	1118.4	6.947	9511	1125.9	7.008	9593	1133.4	7.068			
289	56.8	9338	1109.7	6.981	9421	1117.2	7.043	9503	1124.7	7.104	9585	1132.2	7.166			
288	56.0	9328	1108.5	7.078	9410	1116.0	7.140	9492	1123.5	7.202	9574	1131.0	7.264			
287	55.1	9320	1107.4	7.175	9402	1114.9	7.238	9484	1122.4	7.301	9566	1129.9	7.364			
286	54.2	9312	1106.3	7.274	9394	1113.8	7.337	9475	1121.2	7.401	9557	1128.7	7.465			
285	53.4	9304	1105.2	7.375	9385	1112.6	7.440	9467	1120.0	7.504	9548	1127.5	7.569			
284	52.6	9294	1104.0	7.476	9375	1111.4	7.541	9456	1118.9	7.607	9537	1126.3	7.672			
283	51.7	9286	1102.9	7.580	9367	1110.3	7.646	9448	1117.7	7.712	9529	1125.2	7.778			
282	50.9	9277	1101.8	7.687	9358	1109.2	7.754	9439	1116.6	7.821	9520	1124.0	7.888			
281	50.1	9270	1100.7	7.797	9351	1108.1	7.865	9431	1115.5	7.933	9512	1122.9	8.001			
280	49.33	9262	1099.5	7.907	9342	1106.9	7.976	9423	1114.3	8.044	9503	1121.7	8.113			
279	48.55	9252	1098.2	8.017	9332	1105.7	8.086	9412	1113.1	8.156	9493	1120.5	8.225			
278	47.77	9242	1097.1	8.131	9323	1104.5	8.211	9404	1111.9	8.272	9484	1119.2	8.343			

Temperature, Degrees Fah.	Pressure, Pounds per Square Inch.	100			150			200			250			300		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	8907	1065.4	8.077	8987	1072.8	8.149	9067	1080.2	8.221	9147	1087.5	8.293	9227	1094.8	8.365
275	45.52	8898	1064.3	8.192	8978	1071.7	8.265	9058	1079.0	8.339	9137	1086.4	8.411	9217	1093.7	8.483
274	44.78	8891	1063.2	8.310	8970	1070.5	8.385	9050	1077.8	8.459	9129	1085.2	8.533	9210	1092.6	8.605
273	44.06	8883	1062.1	8.431	8962	1069.4	8.506	9042	1076.7	8.582	9121	1084.1	8.656	9203	1091.5	8.727
272	43.35	8875	1061.0	8.555	8954	1068.3	8.631	9033	1075.6	8.708	9113	1082.9	8.783	9195	1090.4	8.849
271	42.64	8867	1059.9	8.679	8946	1067.2	8.756	9025	1074.5	8.833	9104	1081.8	8.910	9187	1089.3	8.981
270	41.95	8859	1058.7	8.805	8937	1066.0	8.883	9016	1073.3	8.961	9095	1080.6	9.039	9179	1088.2	9.109
269	41.26	8851	1057.6	8.932	8929	1064.9	9.012	9008	1072.2	9.091	9087	1079.5	9.170	9172	1087.1	9.240
268	40.58	8843	1056.5	9.066	8921	1063.8	9.146	9000	1071.0	9.227	9078	1078.3	9.306	9165	1086.0	9.371
267	39.91	8835	1055.4	9.199	8913	1062.6	9.281	8992	1069.9	9.362	9070	1077.1	9.443	9158	1084.9	9.507
266	39.26	8826	1054.2	9.331	8904	1061.4	9.414	8983	1068.7	9.497	9061	1075.9	9.579	9151	1083.8	9.578
265	38.60	8818	1053.1	9.473	8896	1060.3	9.557	8974	1067.6	9.640	9052	1074.8	9.724	9144	1082.7	9.649
264	37.96	8810	1051.9	9.614	8888	1059.2	9.699	8966	1066.4	9.784	9044	1073.6	9.869	9137	1081.6	9.720
263	37.33	8803	1050.8	9.755	8880	1058.1	9.841	8958	1065.3	9.927	9036	1072.5	10.01	9130	1080.5	9.791
262	36.71	8795	1049.7	9.905	8872	1056.9	9.992	8950	1064.1	10.08	9027	1071.3	10.16	9123	1079.4	9.862
261	36.09	8788	1048.6	10.05	8865	1055.8	10.14	8942	1063.0	10.23	9020	1070.2	10.32	9116	1078.3	9.933
260	35.48	8780	1047.4	10.20	8857	1054.6	10.29	8934	1061.8	10.38	9011	1069.0	10.47	9109	1077.2	10.00
259	34.88	8771	1046.3	10.36	8848	1053.4	10.45	8925	1060.6	10.54	9002	1067.8	10.63	9102	1076.1	10.07
258	34.29	8763	1045.1	10.52	8839	1052.2	10.61	8916	1059.4	10.70	8993	1066.6	10.79	9095	1075.0	10.14
257	33.71	8755	1044.0	10.67	8832	1051.1	10.77	8909	1058.3	10.86	8985	1065.5	10.95	9088	1073.9	10.21
256	33.14	8747	1042.9	10.84	8823	1050.0	10.93	8900	1057.2	11.03	8977	1064.3	11.12	9081	1072.8	10.28
255	32.57	8738	1041.7	11.01	8815	1048.8	11.11	8891	1056.0	11.20	8967	1063.1	11.30	9074	1071.7	10.35
254	32.01	8730	1040.5	11.18	8806	1047.6	11.28	8883	1054.7	11.38	8959	1061.9	11.48	9067	1070.6	10.42
253	31.46	8722	1039.4	11.36	8798	1046.5	11.46	8874	1053.6	11.55	8950	1060.8	11.65	9060	1069.5	10.49
252	30.92	8714	1038.2	11.54	8791	1045.4	11.64	8866	1052.5	11.74	8942	1059.6	11.84	9053	1068.4	10.56
251	30.38	8707	1037.1	11.72	8782	1044.2	11.82	8858	1051.3	11.92	8934	1058.4	12.02	9046	1067.3	10.63
250	29.86	8698	1035.9	11.90	8774	1043.0	12.00	8849	1050.1	12.11	8925	1057.2	12.21	9039	1066.2	10.70
249	29.34	8690	1034.8	12.09	8765	1041.9	12.19	8841	1048.9	12.30	8916	1056.0	12.40	9032	1065.1	10.77
248	28.82	8682	1033.6	12.27	8757	1040.7	12.38	8832	1047.7	12.49	8907	1054.8	12.59	9025	1064.0	10.84
247	28.32	8674	1032.5	12.47	8749	1039.6	12.57	8825	1046.6	12.68	8900	1053.7	12.79	9018	1062.9	10.91
246	27.82	8666	1031.3	12.66	8741	1038.4	12.77	8816	1045.4	12.88	8891	1052.5	12.99	9011	1061.8	10.98
245	27.33	8658	1030.2	12.85	8733	1037.3	12.96	8807	1044.3	13.09	8882	1051.3	13.18	9004	1060.7	11.05
244	26.85	8650	1029.0	13.07	8725	1036.1	13.18	8800	1043.1	13.30	8874	1050.1	13.41	8997	1059.6	11.12
243	26.37	8642	1027.9	13.28	8717	1035.0	13.40	8791	1042.0	13.51	8865	1049.0	13.63	8990	1058.5	11.19
242	25.90	8635	1026.8	13.50	8709	1033.8	13.61	8783	1040.8	13.73	8857	1047.8	13.84	8983	1057.4	11.26
241	25.44	8626	1025.6	13.72	8700	1032.6	13.83	8774	1039.6	13.95	8848	1046.6	14.07	8976	1056.3	11.33
240	24.98	8619	1024.4	13.94	8693	1031.4	14.06	8766	1038.3	14.18	8840	1045.3	14.29	8969	1055.2	11.40
239	24.53	8610	1023.2	14.16	8684	1030.2	14.29	8758	1037.2	14.41	8832	1044.2	14.53	8962	1054.1	11.47
238	24.09	8603	1022.0	14.40	8676	1029.0	14.52	8750	1036.0	14.65	8823	1043.0	14.77	8955	1053.0	11.54
237	23.66	8594	1020.9	14.64	8668	1027.9	14.76	8741	1034.8	14.89	8815	1041.8	15.01	8948	1051.9	11.61
236	23.23	8587	1019.7	14.88	8660	1026.7	15.01	8733	1033.6	15.13	8806	1040.6	15.26	8941	1050.8	11.68
235	22.80	8578	1018.5	15.12	8651	1025.5	15.25	8724	1032.4	15.38	8797	1039.4	15.51	8934	1049.7	11.75
234	22.39	8570	1017.3	15.37	8642	1024.2	15.50	8715	1031.2	15.64	8788	1038.1	15.77	8927	1048.6	11.82
233	21.98	8562	1016.1	15.63	8635	1023.1	15.77	8707	1030.0	15.90	8780	1036.9	16.03	8920	1047.5	11.89
232	21.57	8553	1014.9	15.89	8626	1021.9	16.03	8699	1028.8	16.16	8771	1035.7	16.30	8913	1046.4	11.96
231	21.18	8546	1013.8	16.16	8618	1020.8	16.30	8690	1027.7	16.43	8763	1034.5	16.57	8906	1045.3	12.03
230	20.78	8538	1012.7	16.43	8610	1019.6	16.57	8682	1026.5	16.70	8755	1033.3	16.84	8899	1044.2	12.10

Temperature, Degrees Fah.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	9226	1094.9	8.366	9306	1102.2	8.438	9386	1109.6	8.516	9466	1117.0	8.594
275	45.52	9217	1093.7	8.484	9297	1101.1	8.558	9377	1108.4	8.631	9456	1116.0	8.712
274	44.78	9209	1092.5	8.607	9288	1099.9	8.681	9368	1107.2	8.755	9447	1115.0	8.830
273	44.06	9200	1091.4	8.731	9280	1098.8	8.806	9359	1106.1	8.882	9438	1114.0	8.948
272	43.35	9192	1090.3	8.859	9271	1097.6	8.935	9350	1104.9	9.012	9429	1113.0	9.066
271	42.64	9183	1089.1	8.987	9262	1096.4	9.064	9341	1103.7	9.142	9420	1112.0	9.184
270	41.95	9174	1087.9	9.117	9253	1095.2	9.196	9332	1102.5	9.274	9410	1111.0	9.302
269	41.26	9165	1086.8	9.249	9244	1094.1	9.328	9323	1101.3	9.408	9401	1110.0	9.420
268	40.58	9157	1085.6	9.387	9235	1092.9	9.467	9314	1100.1	9.548	9392	1109.0	9.538
267	39.91	9148	1084.4	9.525	9227	1091.7	9.606	9305	1098.9	9.688	9383	1108.0	9.656
266	39.26	9139	1083.2	9.661	9217	1090.4	9.743	9295	1097.7	9.826	9373	1107.0	9.784
265	38.60	9130	1082.1	9.807	9208	1089.3	9.891	9286	1096.5	9.975	9364	1106.0	9.902
264	37.96	9122	1080.9	9.953	9200	1088.1	10.04	9277	1095.3	10.12	9355	1105.0	10.02
263	37.33	9113	1079.7	10.10	9191	1087.0	10.18	9269	1094.2	10.27	9346	1104.0	10.10
262	36.71	9105	1078.5	10.25	9182	1085.8	10.34	9260	1093.0	10.43	9337	1103.0	10.18
261	36.09	9097	1077.4	10.41	9174	1084.6	10.50	9252	1091.8	10.58	9329	1102.0	10.26
260	35.48	9088	1076.2	10.56	9165	1083.4	10.65	9243	1090.6	10.74	9320	1101.0	10.34
259	34.88	9079	1075.0	10.72	9156	1082.2	10.81	9233	1089.4	10.90	9310	1100.0	10.42
258	34.29	9070	1073.8	10.88	9147	1080.9	10.98	9224	1088.1	11.07	9301	1099.0	10.50
257	33.71	9062	1072.7	11.05	9139	1079.8	11.14	9215	1087.0	11.23	9292	1098.0	10.58
256	33.14	9053	1071.5	11.22	9130	1078.6	11.31	9206	1085.8	11.41	9283	1097.0	10.66
255	32.57	9044	1070.3	11.39	9120	1077.4	11.49	9196	1084.6	11.59	9273	1096.0	10.74
254	32.01	9035	1069.0	11.57	9111	1076.1	11.67	9187	1083.3	11.77	9263	1095.0	10.82
253	31.46	9026	1067.9	11.75	9102	1075.0	11.85	9178	1082.1	11.95	9254	1094.0	10.90
252	30.92	9018	1066.7	11.94	9094	1073.8	12.04	9170	1080.9	12.14	9246	1093.0	10.98
251	30.38	9009	1065.5	12.13	9085	1072.6	12.23	9161	1079.7	12.33	9236	1092.0	11.06
250	29.86	9001	1064.3	12.31	9076	1071.4	12.42	9152	1078.5	12.52	9227	1091.0	11.14
249	29.34	8992	1063.1	12.51	9067	1070.2	12.61	9142	1077.3	12.72	9218	1090.0	11.22
248	28.82	8983	1061.9	12.70	9058	1069.0	12.81	9133	1076.0	12.91	9208	1089.0	11.30
247	28.32	8975	1060.7	12.90	9050	1067.8	13.01	9125	1074.8	13.11	9200	1088.0	11.38
246	27.82	8966	1059.5	13.10	9041	1066.6	13.21	9115	1073.6	13.32	9190	1087.0	11.46
245	27.33	8957	1058.4	13.29	9031	1065.4	13.41	9106	1072.5	13.52	9181	1086.0	11.54
244	26.85	8949	1057.2	13.52	9023	1064.2	13.63	9098	1071.3	13.75	9172	1085.0	11.62
243	26.37	8940	1056.0	13.74	9014	1063.0	13.85	9088	1070.1	13.97	9163	1084.0	11.70
242	25.90	8931	1054.8	13.96	9006	1061.8	14.08	9080	1068.8	14.19	9154	1083.0	11.78
241	25.44	8923	1052.6	14.19	8997	1060.6	14.30	9071	1067.6	14.42	9145	1082.0	11.86
240	24.98	8914	1052.3	14.41	8988	1059.3	14.53	9062	1066.3	14.65	9136	1081.0	11.94
239	24.53	8905	1051.1	14.65	8979	1058.1	14.77	9053	1065.1	14.89	9127	1080.0	12.02
238	24.09	8897	1049.9	14.89	8971	1056.9	15.02	9044	1063.9	15.14	9118	1079.0	12.10
237	23.66	8888	1048.7	15.14	8961	1055.7	15.26	9035	1062.7	15.39	9108	1078.0	12.18
236	23.23	8880	1047.5	15.39	8953	1054.5	15.52	9026	1061.5	15.64	9099	1077.0	12.26
235	22.80	8871	1046.3	15.64	8944	1053.3	15.77	9017	1060.2	15.90	9090	1076.0	12.34
234	22.39	8861	1045.0	15.90	8934	1052.0	16.03	9007	1058.9	16.16	9080	1075.0	12.42
233	21.98	8853	1043.8	16.17	8926	1050.8	16.30	8998	1057.7	16.43	9071	1074.0	12.50
232	21.57	8844	1042.6	16.43	8916	1049.5	16.57	8989	1056.4	16.70	9062	1073.0	12.58
231	21.18	8835	1041.4	16.71	8908	1048.3	16.84	8980	1055.2	16.98	9053	1072.0	12.66
230	20.79	8827	1040.2	16.98	8900	1047.1	17.12	8972	1054.0	17.26	9044	1071.0	12.74

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1. 52			1. 53			1. 54			1. 55		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
228	20.02	8521	1010.2	16.98	8593	1017.1	17.13	8665	1024.0	17.27	8737	1030.8	17.44
227	19.64	8513	1009.1	17.27	8584	1015.9	17.42	8656	1022.8	17.56	8728	1029.6	17.71
226	19.28	8505	1007.9	17.58	8576	1014.7	17.73	8648	1021.6	17.88	8720	1028.4	18.00
225	18.91	8496	1006.7	17.88	8568	1013.5	18.03	8639	1020.4	18.18	8711	1027.2	18.33
224	18.56	8488	1005.5	18.18	8560	1012.3	18.33	8631	1019.2	18.49	8702	1026.0	18.56
223	18.21	8480	1004.4	18.50	8552	1011.2	18.65	8623	1018.0	18.81	8694	1024.8	18.69
222	17.86	8472	1003.2	18.81	8543	1010.0	18.97	8614	1016.8	19.12	8686	1023.6	19.28
221	17.52	8465	1002.0	19.14	8536	1008.8	19.30	8607	1015.6	19.46	8678	1022.4	19.62
220	17.19	8457	1000.8	19.48	8528	1007.6	19.64	8599	1014.4	19.80	8670	1021.2	19.97
219	16.86	8449	999.6	19.82	8519	1006.4	19.99	8590	1013.1	20.15	8660	1019.9	20.32
218	16.53	8440	998.3	20.17	8510	1005.1	20.34	8581	1011.8	20.51	8651	1018.6	20.68
217	16.21	8432	997.1	20.52	8502	1003.9	20.69	8572	1010.6	20.86	8642	1017.4	21.04
216	15.90	8424	995.9	20.88	8494	1002.7	21.06	8564	1009.4	21.23	8634	1016.2	21.40
215	15.59	8416	994.7	21.25	8485	1001.5	21.43	8555	1008.2	21.60	8625	1015.0	21.78
214	15.29	8407	993.5	21.63	8477	1000.3	21.81	8547	1007.0	21.99	8617	1013.7	22.17
213	14.99	8399	992.3	22.01	8469	999.1	22.20	8539	1005.8	22.38	8608	1012.5	22.56
212	14.70	8391	991.1	22.37	8461	997.9	22.56	8530	1004.6	22.74	8600	1011.3	22.93
211	14.41	8383	989.9	22.73	8452	996.7	22.92	8522	1004.4	23.10	8591	1010.1	23.29
210	14.12	8375	988.7	23.14	8444	995.4	23.33	8513	1002.1	23.52	8582	1008.8	23.71
209	13.84	8366	987.5	23.56	8435	994.2	23.75	8504	1000.9	23.95	8574	1007.5	24.14
208	13.57	8358	986.3	23.99	8427	993.0	24.19	8496	999.6	24.38	8565	1006.3	24.58
207	13.29	8350	985.1	24.43	8419	991.7	24.63	8487	998.4	24.83	8556	1005.1	25.04
206	13.03	8342	983.8	24.88	8410	990.5	25.09	8479	997.2	25.29	8547	1003.8	25.50
205	12.77	8333	982.6	25.33	8402	989.3	25.54	8470	995.9	25.75	8539	1002.6	25.96
204	12.51	8325	981.4	25.80	8393	988.0	26.01	8462	994.7	26.22	8530	1001.3	26.43
203	12.25	8317	980.2	26.27	8385	986.8	26.49	8453	993.4	26.70	8521	1000.1	26.92
202	12.01	8309	979.0	26.76	8377	985.6	26.97	8445	992.2	27.19	8513	998.9	27.41
201	11.76	8302	977.8	27.26	8369	984.4	27.49	8437	991.0	27.71	8505	997.6	27.93
200	11.52	8293	976.5	27.77	8361	983.1	27.99	8429	989.7	28.22	8496	996.3	28.45
199	11.28	8285	975.3	28.28	8352	981.9	28.52	8420	988.5	28.75	8487	995.1	28.98
198	11.05	8277	974.1	28.81	8345	980.7	29.05	8412	987.3	29.28	8479	993.9	29.52
197	10.82	8268	972.8	29.35	8335	979.4	29.59	8402	985.9	29.83	8470	992.5	30.07
196	10.60	8259	971.5	29.91	8327	978.1	30.15	8394	984.7	30.39	8461	991.2	30.64
195	10.38	8252	970.4	30.48	8319	976.9	30.73	8385	983.4	30.98	8452	990.0	31.22
194	10.16	8243	969.1	31.06	8310	975.6	31.31	8377	982.2	31.56	8443	988.7	31.81
193	9.95	8235	967.9	31.66	8302	974.4	31.91	8369	981.0	32.17	8435	987.5	32.42
192	9.74	8227	966.7	32.27	8293	973.2	32.53	8360	979.7	32.79	8426	986.2	33.05
191	9.53	8218	965.4	32.88	8285	971.9	33.15	8351	978.4	33.41	8417	984.9	33.68
190	9.33	8210	964.2	33.52	8277	970.7	33.79	8343	977.2	34.06	8409	983.7	34.33
189	9.13	8202	963.0	34.17	8268	969.5	34.45	8334	976.0	34.72	8400	982.4	35.00
188	8.94	8194	961.7	34.83	8260	968.2	35.11	8326	974.7	35.39	8391	981.1	35.67
187	8.75	8186	960.5	35.51	8252	967.0	35.80	8317	973.4	36.08	8383	979.9	36.37
186	8.56	8177	959.2	36.21	8243	965.7	36.50	8308	972.1	36.79	8374	978.6	37.08
185	8.37	8169	958.0	36.92	8235	964.5	37.22	8300	970.9	37.52	8365	977.4	37.81
184	8.19	8161	956.7	37.66	8226	963.2	37.96	8291	969.6	38.26	8356	976.0	38.56
183	8.01	8153	955.5	38.41	8218	961.9	38.71	8283	968.4	39.02	8348	974.8	39.22

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.50			1.54			1.58			1.62		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
228	20.02	8809	1037.7	17.56	8881	1044.6	17.70	8953	1051.5	17.84	9025	1058.3	17.99
227	19.64	8800	1036.5	17.86	8872	1043.4	18.00	8944	1050.3	18.15	9015	1057.1	18.29
226	19.28	8791	1035.3	18.17	8863	1042.2	18.32	8935	1049.0	18.47	9006	1055.9	18.62
225	18.91	8782	1034.1	18.48	8854	1041.0	18.63	8925	1047.8	18.78	8997	1054.6	18.93
224	18.56	8774	1032.8	18.79	8845	1039.7	18.95	8916	1046.5	19.10	8988	1053.3	19.25
223	18.21	8765	1031.6	19.12	8836	1038.5	19.27	8908	1045.3	19.43	8979	1052.1	19.58
222	17.86	8757	1030.4	19.44	8828	1037.2	19.60	8899	1044.0	19.76	8970	1050.9	19.91
221	17.52	8749	1029.2	19.78	8820	1036.0	19.94	8891	1042.8	20.10	8962	1049.7	20.26
220	17.19	8740	1028.0	20.13	8811	1034.8	20.29	8881	1041.6	20.45	8952	1048.4	20.62
219	16.86	8731	1026.7	20.48	8802	1033.5	20.65	8872	1041.3	20.81	8943	1047.1	20.98
218	16.53	8721	1025.4	20.84	8792	1032.2	21.01	8862	1039.0	21.18	8933	1045.8	21.35
217	16.21	8713	1024.2	21.21	8783	1031.0	21.38	8853	1037.7	21.55	8924	1044.5	21.72
216	15.90	8704	1022.9	21.58	8774	1029.7	21.75	8844	1036.4	21.92	8914	1043.2	22.10
215	15.59	8695	1021.7	21.96	8765	1028.5	22.13	8835	1035.2	22.31	8905	1042.0	22.49
214	15.29	8687	1020.5	22.35	8756	1027.2	22.53	8826	1033.9	22.71	8896	1040.7	22.89
213	14.99	8678	1019.3	22.74	8748	1026.0	22.93	8817	1032.7	23.11	8887	1039.4	23.29
212	14.70	8669	1018.0	23.11	8739	1024.7	23.30	8808	1031.4	23.48	8878	1038.1	23.67
211	14.41	8660	1016.8	23.48	8730	1023.5	23.67	8799	1030.2	23.86	8868	1036.9	24.04
210	14.12	8652	1015.5	23.90	8721	1022.2	24.10	8790	1028.9	24.29	8859	1035.6	24.48
209	13.84	8643	1014.2	24.34	8712	1020.9	24.53	8781	1027.6	24.73	8850	1034.3	24.92
208	13.57	8634	1013.0	24.78	8703	1019.7	24.98	8771	1026.3	25.17	8840	1033.0	25.37
207	13.29	8625	1011.7	25.24	8694	1018.4	25.44	8762	1025.1	25.64	8831	1031.7	25.84
206	13.03	8616	1010.5	25.70	8685	1017.1	25.91	8753	1023.8	26.11	8822	1030.4	26.32
205	12.77	8607	1009.2	26.17	8676	1015.9	26.37	8744	1022.5	26.58	8812	1029.1	26.79
204	12.51	8598	1007.9	26.65	8666	1014.6	26.86	8735	1021.2	27.07	8803	1027.8	27.28
203	12.25	8589	1006.7	27.13	8657	1013.3	27.35	8725	1019.9	27.56	8794	1026.6	27.78
202	12.01	8581	1005.5	27.63	8649	1012.1	27.85	8717	1018.7	28.07	8785	1025.3	28.29
201	11.76	8573	1004.2	28.15	8641	1010.8	28.38	8709	1017.4	28.60	8776	1024.0	28.82
200	11.52	8564	1002.9	28.67	8632	1009.5	28.90	8699	1016.1	29.13	8767	1022.7	29.35
199	11.28	8555	1001.7	29.21	8622	1008.2	29.44	8690	1014.8	29.67	8758	1021.4	29.90
198	11.05	8547	1000.4	29.75	8614	1007.0	29.99	8681	1013.6	30.22	8749	1020.2	30.45
197	10.82	8537	999.1	30.31	8604	1005.6	30.54	8671	1012.2	30.78	8738	1018.7	31.02
196	10.60	8528	997.8	30.88	8595	1004.3	31.12	8662	1010.9	31.36	8729	1017.4	31.61
195	10.38	8519	996.5	31.47	8586	1003.1	31.72	8653	1009.6	31.96	8720	1016.2	32.21
194	10.16	8510	995.2	32.07	8577	1001.8	32.32	8644	1008.3	32.57	8710	1014.9	32.82
193	9.95	8502	994.0	32.68	8568	1000.5	32.94	8635	1007.1	33.19	8702	1013.6	33.45
192	9.74	8493	992.7	33.31	8559	999.2	33.57	8626	1005.7	33.83	8692	1012.3	34.09
191	9.53	8483	991.4	33.94	8550	997.9	34.21	8616	1004.4	34.47	8682	1010.9	34.74
190	9.33	8475	990.2	34.60	8541	996.7	34.87	8607	1003.2	35.14	8673	1009.7	35.41
189	9.13	8466	988.9	35.27	8532	995.4	35.55	8598	1001.9	35.82	8664	1008.4	36.10
188	8.94	8457	987.6	35.95	8523	994.1	36.23	8589	1000.6	36.51	8655	1007.0	36.79
187	8.75	8449	986.4	36.65	8514	992.8	36.94	8580	999.3	37.22	8646	1005.8	37.51
186	8.56	8439	985.1	37.37	8505	991.5	37.66	8571	998.0	37.95	8636	1004.4	38.24
185	8.37	8431	983.8	38.11	8496	990.2	38.40	8562	996.7	38.70	8627	1003.1	38.99
184	8.19	8422	982.5	38.87	8487	988.9	39.17	8552	995.3	39.47	8617	1001.8	39.77
183	8.01	8413	981.2	39.63	8478	987.6	39.94	8543	994.1	40.25	8608	1000.5	40.55

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	8128	951.7	40.75	8192	958.1	41.08	8257	964.5	41.40	8322	970.8	41.72
179	7.34	8119	950.4	41.56	8184	956.8	41.89	8249	963.2	42.22	8313	969.6	42.55
178	7.17	8111	949.2	42.40	8176	955.6	42.73	8240	961.9	43.07	8304	968.3	43.41
177	7.01	8103	947.9	43.26	8167	954.3	43.61	8232	960.7	43.95	8296	967.0	44.29
176	6.86	8094	946.6	44.15	8158	953.0	44.50	8223	959.3	44.85	8287	965.7	45.20
175	6.70	8086	945.4	45.04	8150	951.7	45.40	8214	958.1	45.75	8278	964.4	46.11
174	6.55	8078	944.1	45.96	8142	950.5	46.33	8206	956.8	46.69	8269	963.1	47.05
173	6.41	8070	942.9	46.91	8133	949.2	47.28	8197	955.5	47.65	8261	961.9	48.02
172	6.26	8061	941.6	47.88	8125	947.9	48.25	8188	954.3	48.63	8252	960.6	49.01
171	6.12	8052	940.3	48.85	8116	946.6	49.24	8179	952.9	49.62	8243	959.2	50.01
170	5.98	8044	939.0	49.87	8107	945.3	50.27	8171	951.6	50.66	8234	957.9	51.05
169	5.84	8036	937.8	50.92	8099	944.1	51.32	8162	950.3	51.72	8225	956.6	52.12
168	5.71	8027	936.5	51.99	8090	942.8	52.40	8153	949.1	52.81	8216	955.3	53.22
167	5.58	8019	935.2	53.09	8082	941.5	53.51	8144	947.8	53.93	8207	954.0	54.34
166	5.45	8011	934.0	54.21	8073	940.2	54.63	8136	946.5	55.06	8199	952.7	55.48
165	5.32	8002	932.7	55.35	8065	938.9	55.78	8127	945.2	56.22	8190	951.4	56.65
164	5.20	7994	931.4	56.53	8056	937.6	56.97	8119	943.9	57.41	8181	950.1	57.86
163	5.08	7985	930.1	57.73	8048	936.3	58.18	8110	942.6	58.63	8172	948.8	59.08
162	4.960	7977	928.8	58.97	8039	935.0	59.43	8101	941.2	59.89	8163	947.5	60.35
161	4.844	7970	927.6	60.25	8032	933.8	60.72	8094	940.0	61.19	8156	946.2	61.66
160	4.729	7961	926.3	61.55	8023	932.5	62.03	8085	938.7	62.50	8147	944.9	62.98
159	4.617	7953	925.0	62.88	8014	931.2	63.37	8076	937.4	63.86	8138	943.5	64.35
158	4.508	7944	923.7	64.25	8006	929.9	64.75	8067	936.0	65.25	8129	942.2	65.75
157	4.400	7936	922.4	65.67	7998	928.6	66.17	8059	934.8	66.68	8120	940.9	67.19
156	4.295	7928	921.1	67.12	7989	927.3	67.63	8050	933.4	68.15	8111	939.6	68.67
155	4.191	7919	919.8	68.59	7980	926.0	69.12	8041	932.1	69.65	8102	938.3	70.17
154	4.090	7910	918.5	70.10	7971	924.6	70.64	8032	930.8	71.18	8093	936.9	71.72
153	3.991	7902	917.2	71.66	7963	923.4	72.21	8024	929.5	72.76	8085	935.6	73.31
152	3.894	7894	915.9	73.26	7954	922.0	73.82	8015	928.2	74.39	8076	934.3	74.95
151	3.799	7885	914.6	74.90	7946	920.7	75.48	8006	926.8	76.05	8067	932.9	76.62
150	3.706	7877	913.3	76.60	7937	919.4	77.18	7998	925.5	77.77	8058	931.6	78.36
149	3.615	7868	912.0	78.32	7928	918.1	78.92	7989	924.2	79.52	8049	930.3	80.12
148	3.526	7860	910.7	80.09	7920	916.8	80.71	7980	922.9	81.32	8040	929.0	81.93
147	3.439	7851	909.4	81.89	7911	915.5	82.51	7971	921.5	83.14	8031	927.6	83.76
146	3.353	7843	908.1	83.76	7903	914.2	84.40	7963	920.2	85.04	8023	926.3	85.68
145	3.270	7834	906.8	85.71	7894	912.8	86.36	7954	918.9	87.02	8013	924.9	87.67
144	3.188	7826	905.5	87.65	7886	911.5	88.32	7945	917.6	88.98	8005	923.6	89.65
143	3.108	7817	904.1	89.66	7877	910.2	90.34	7936	916.2	91.03	7995	922.2	91.71
142	3.029	7809	902.8	91.75	7868	908.9	92.45	7927	914.9	93.15	7987	920.9	93.84
141	2.953	7801	901.5	93.93	7860	907.5	94.64	7920	913.5	95.35	7979	919.6	96.06
140	2.877	7792	900.2	96.16	7851	906.2	96.89	7910	912.2	97.61	7969	918.2	98.34
139	2.804	7784	898.9	98.47	7843	904.9	99.21	7902	910.8	99.96	7961	916.8	100.7
138	2.732	7776	897.6	100.8	7834	903.5	101.5	7893	909.5	102.3	7952	915.5	103.1
137	2.662	7767	896.2	103.1	7825	902.2	103.9	7884	908.1	104.7	7942	914.1	105.5
136	2.593	7758	894.9	105.6	7817	900.8	106.4	7875	906.8	107.2	7934	912.7	108.0
135	2.526	7750	893.6	108.1	7808	899.5	108.9	7866	905.5	109.7	7925	911.4	110.5
134	2.460	7741	892.3	110.2	7800	898.2	111.5	7857	904.2	112.5	7916	910.1	113.0

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	1.56			1.57			1.58			1.59		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	8386	977.2	42.05	8451	983.6	42.37	8516	990.3	42.70	8580	996.4	43.02
179	7.34	8378	976.0	42.88	8442	982.3	43.22	8507	988.7	43.55	8571	995.1	43.88
178	7.17	8369	974.7	43.74	8433	981.1	44.08	8498	987.4	44.42	8562	993.8	44.75
177	7.01	8360	973.4	44.63	8424	979.8	44.98	8489	986.1	45.32	8553	992.5	45.66
176	6.86	8351	972.1	45.54	8415	978.4	45.89	8479	984.8	46.24	8543	991.1	46.59
175	6.70	8342	970.8	46.46	8406	977.1	46.82	8470	983.5	47.18	8534	989.8	47.53
174	6.55	8333	969.5	47.42	8397	975.8	47.78	8461	982.1	48.14	8525	988.5	48.50
173	6.41	8324	968.2	48.39	8388	974.5	48.76	8452	980.8	49.13	8515	987.2	49.50
172	6.26	8315	966.9	49.39	8379	973.2	49.76	8442	979.5	50.14	8506	985.8	50.52
171	6.12	8306	965.5	50.39	8369	971.8	50.78	8433	978.1	51.16	8496	984.4	51.55
170	5.98	8297	964.2	51.44	8360	970.5	51.83	8423	976.8	52.23	8487	983.1	52.62
169	5.84	8288	962.9	52.52	8351	969.2	52.92	8414	975.5	53.32	8477	981.8	53.72
168	5.71	8279	961.6	53.62	8342	967.9	54.03	8405	974.2	54.44	8468	980.4	54.85
167	5.58	8270	960.3	54.76	8333	966.6	55.17	8396	972.8	55.59	8459	979.1	56.00
166	5.45	8261	959.0	55.90	8324	965.2	56.33	8387	971.5	56.75	8449	977.7	57.18
165	5.32	8252	957.7	57.08	8315	963.9	57.51	8377	970.1	57.95	8440	976.4	58.38
164	5.20	8243	956.3	58.30	8306	962.6	58.74	8368	968.8	59.18	8430	975.0	59.62
163	5.08	8234	955.0	59.53	8296	961.2	59.98	8359	967.5	60.43	8421	973.7	60.88
162	4.960	8225	953.7	60.81	8287	959.9	61.27	8349	966.1	61.73	8411	972.3	62.19
161	4.844	8218	952.4	62.13	8280	958.6	62.59	8341	964.8	63.06	8403	971.0	63.53
160	4.729	8209	951.1	63.46	8270	957.3	63.94	8332	963.5	64.42	8394	969.7	64.89
159	4.617	8199	949.7	64.83	8261	955.9	65.32	8323	962.1	65.81	8384	968.3	66.29
158	4.508	8190	948.4	66.24	8252	954.6	66.74	8313	960.7	67.24	8375	966.9	67.74
157	4.400	8182	947.1	67.70	8243	953.3	68.20	8304	959.4	68.71	8366	965.6	69.22
156	4.295	8173	945.8	69.19	8234	951.9	69.71	8295	958.1	70.23	8356	964.2	70.74
155	4.191	8163	944.4	70.70	8224	950.5	71.23	8286	956.7	71.76	8347	962.8	72.29
154	4.090	8154	943.0	72.26	8215	949.2	72.80	8276	955.3	73.34	8337	961.5	73.88
153	3.991	8146	941.7	73.86	8206	947.9	74.42	8267	954.0	74.97	8328	960.1	75.52
152	3.894	8136	940.4	75.51	8197	946.5	76.08	8258	952.6	76.64	8318	958.7	77.20
151	3.799	8127	939.0	77.20	8188	945.1	77.77	8248	951.2	78.35	8309	957.3	78.92
150	3.706	8118	937.7	78.94	8179	943.8	79.53	8239	949.9	80.12	8300	956.0	80.70
149	3.615	8109	936.3	80.72	8169	942.4	81.32	8230	948.5	81.92	8290	954.6	82.52
148	3.526	8100	935.0	82.54	8160	941.1	83.16	8221	947.2	83.77	8281	953.3	84.38
147	3.439	8091	933.7	84.39	8151	939.7	85.01	8211	945.8	85.64	8271	951.8	86.27
146	3.353	8082	932.3	86.32	8142	938.4	86.96	8202	944.4	87.60	8262	950.5	88.24
145	3.270	8073	930.9	88.32	8133	937.0	88.97	8192	943.0	89.63	8252	949.1	90.28
144	3.188	8064	929.6	90.32	8124	935.7	90.99	8183	941.7	91.65	8243	947.7	92.32
143	3.108	8055	928.2	92.39	8114	934.3	93.07	8173	940.3	93.75	8233	946.3	94.43
142	3.029	8046	926.9	94.54	8105	932.9	95.23	8164	938.9	95.93	8224	944.9	96.63
141	2.953	8038	925.6	96.77	8097	931.6	97.49	8156	937.6	98.20	8215	943.6	98.91
140	2.877	8028	924.2	99.07	8087	930.2	99.80	8146	936.1	100.5	8205	942.1	101.3
139	2.804	8019	922.8	101.4	8078	928.8	102.2	8137	934.8	102.9	8196	940.8	103.7
138	2.732	8010	921.5	103.8	8069	927.4	104.6	8128	933.4	105.3	8187	939.4	106.1
137	2.662	8001	920.1	106.3	8060	926.0	107.0	8118	932.0	107.8	8177	938.0	108.6
136	2.593	7992	918.7	108.8	8050	924.7	109.6	8109	930.6	110.4	8167	936.6	111.2
135	2.526	7983	917.3	111.4	8041	923.3	112.2	8100	929.2	113.0	8158	935.2	113.8

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	1.52			1.53			1.54			1.55		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.333	7724	889.5	116.2	7782	895.4	117.0	7840	901.4	117.9	7897	907.3	118.8
131	2.272	7715	888.2	119.0	7773	894.1	119.9	7831	900.0	120.8	7889	905.9	121.6
130	2.212	7707	886.9	121.8	7764	892.8	122.8	7822	898.7	123.7	7880	904.6	124.6
129	2.153	7698	885.5	124.9	7756	891.4	125.9	7813	897.3	126.8	7871	903.2	127.7
128	2.096	7690	884.2	128.0	7747	890.1	128.9	7804	895.9	129.9	7862	901.8	130.8
127	2.040	7681	882.9	131.1	7738	888.8	132.1	7795	894.6	133.1	7853	900.5	134.0
126	1.985	7672	881.5	134.4	7729	887.4	135.4	7787	893.2	136.4	7844	899.1	137.4
125	1.932	7664	880.2	137.8	7721	886.1	138.8	7778	891.9	139.8	7834	897.8	140.9
124	1.880	7655	878.8	141.2	7712	884.6	142.3	7769	890.5	143.3	7825	896.3	144.4
123	1.829	7646	877.5	144.7	7703	883.3	145.8	7760	889.1	146.9	7816	895.0	148.0
122	1.779	7638	876.1	148.4	7694	881.9	149.5	7751	887.7	150.6	7807	893.5	151.7
121	1.730	7630	874.8	152.2	7687	880.6	153.3	7743	886.4	154.5	7799	892.2	155.6
120	1.683	7622	873.4	156.1	7678	879.2	157.2	7734	885.0	158.4	7790	890.8	159.5
119	1.636	7613	872.1	160.1	7669	877.9	161.3	7725	883.7	162.5	7781	889.4	163.6
118	1.591	7604	870.7	164.3	7660	876.5	165.5	7716	882.3	166.7	7772	888.0	167.9
117	1.547	7596	869.3	168.5	7651	875.1	169.7	7707	880.9	170.9	7763	886.6	172.2
116	1.504	7587	867.9	172.8	7642	873.7	174.1	7698	879.4	175.4	7754	885.2	176.6
115	1.462	7579	866.6	177.3	7634	872.4	178.6	7690	878.1	179.9	7745	883.8	181.2
114	1.421	7570	865.2	182.0	7625	871.0	183.3	7680	876.7	184.6	7736	882.4	186.0
113	1.381	7561	863.9	186.7	7616	869.6	188.1	7671	875.3	189.5	7727	881.0	190.8
112	1.342	7552	862.5	191.7	7608	868.2	193.1	7663	873.9	194.5	7718	879.6	195.9
111	1.304	7543	861.2	196.8	7598	866.8	198.2	7653	872.5	199.7	7708	878.2	201.1
110	1.266	7535	859.8	202.0	7590	865.4	203.5	7645	871.1	205.0	7700	876.8	206.4
109	1.230	7526	858.4	207.4	7581	864.1	208.9	7635	869.7	210.4	7690	875.4	211.9
108	1.195	7518	857.0	213.0	7572	862.7	214.5	7627	868.3	216.1	7681	874.0	217.6
107	1.160	7508	855.6	218.6	7563	861.3	220.2	7617	866.9	221.8	7672	872.6	223.4
106	1.127	7500	854.2	224.5	7554	859.9	226.2	7609	865.5	227.8	7663	871.2	229.4
105	1.094	7491	852.8	230.7	7546	858.5	232.4	7600	864.1	234.1	7654	869.8	235.7
104	1.062	7482	851.4	237.0	7536	857.1	238.8	7591	862.7	240.5	7645	868.3	242.2
103	1.031	7474	850.1	243.6	7528	855.7	245.3	7582	861.3	247.1	7636	866.9	248.8
102	1.000	7465	848.7	250.2	7519	854.3	252.0	7573	859.9	253.8	7627	865.5	255.6
101	0.971	7457	847.3	257.1	7511	852.9	259.0	7565	858.5	260.8	7618	864.1	262.7
100	0.942	7448	845.9	264.2	7502	851.5	266.1	7555	857.1	268.0	7609	862.7	269.9
99	0.914	7439	844.5	271.7	7493	850.1	273.6	7546	856.7	275.6	7600	861.3	277.5
98	0.887	7431	843.1	279.3	7484	848.7	281.3	7537	854.2	283.3	7591	859.8	285.3
97	0.860	7422	841.8	287.2	7475	847.4	289.2	7528	852.9	291.3	7581	858.5	293.3
96	0.834	7414	840.4	295.4	7467	846.0	297.5	7520	851.5	299.6	7573	857.1	301.7
95	0.809	7405	839.0	303.8	7458	844.6	305.9	7511	850.1	308.1	7564	855.7	310.3
94	0.784	7396	837.6	312.4	7449	843.1	314.7	7502	848.7	316.9	7555	854.2	319.1
93	0.761	7388	836.2	321.4	7440	841.7	323.6	7493	847.3	325.9	7546	852.8	328.2
92	0.737	7379	834.8	330.6	7431	840.3	333.0	7484	845.8	335.3	7536	851.3	337.7
91	0.715	7370	833.4	340.3	7422	838.9	342.7	7475	844.4	345.1	7527	849.9	347.5
90	0.693	7361	832.0	350.1	7413	837.5	352.6	7466	843.0	355.1	7518	848.4	357.5
89	0.671	7352	830.6	360.3	7404	836.1	362.8	7456	841.6	365.4	7509	847.0	367.9
88	0.650	7343	829.1	370.7	7395	834.6	373.3	7447	840.1	375.9	7499	845.5	378.6
87	0.630	7335	827.7	381.7	7387	833.2	384.4	7439	838.7	387.1	7491	844.0	389.9

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.56			1.57			1.58			1.59		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.332	7955	913.2	119.6	8013	919.1	120.5	8071	925.0	121.4	8129	930.9	122.3
131	2.272	7946	911.8	122.5	8004	917.7	123.4	8062	923.6	124.3	8119	929.5	125.2
130	2.212	7937	910.4	125.5	7995	916.3	126.4	8052	922.2	127.3	8110	928.1	128.2
129	2.153	7928	909.1	128.7	7986	915.0	129.6	8043	920.8	130.5	8100	926.7	131.5
128	2.096	7919	907.7	131.8	7976	913.6	132.7	8033	919.4	133.7	8091	925.3	134.6
127	2.040	7910	906.3	135.0	7967	912.2	136.0	8024	918.0	137.0	8081	923.9	137.9
126	1.985	7901	904.9	138.4	7958	910.8	139.4	8015	916.6	140.4	8072	922.5	141.4
125	1.932	7891	903.6	141.9	7948	909.4	142.9	8005	915.3	143.9	8062	921.1	145.0
124	1.880	7882	902.1	145.4	7939	908.0	146.5	7996	913.8	147.5	8052	919.6	148.6
123	1.829	7873	900.8	149.0	7930	906.6	150.1	7986	912.5	151.2	8043	918.3	152.3
122	1.779	7864	899.3	152.8	7920	905.1	153.9	7977	911.0	155.0	8033	916.8	156.1
121	1.730	7856	898.0	156.7	7912	903.8	157.8	7968	909.6	159.0	8025	915.4	160.1
120	1.683	7846	896.6	160.7	7903	902.4	161.8	7959	908.2	163.0	8015	914.0	164.2
119	1.636	7837	895.2	164.8	7893	901.0	166.0	7949	906.8	167.2	8005	912.6	168.4
118	1.591	7828	893.8	169.1	7884	899.6	170.3	7940	905.4	171.5	7996	911.1	172.7
117	1.547	7819	892.4	173.4	7875	898.2	174.7	7931	903.9	175.9	7986	909.7	177.1
116	1.504	7809	890.9	177.9	7865	896.7	179.2	7921	902.4	180.4	7976	908.2	181.7
115	1.462	7801	889.6	182.5	7856	895.3	183.8	7912	901.0	185.1	7967	906.8	186.4
114	1.421	7791	888.2	187.3	7847	893.9	188.6	7902	899.6	190.0	7958	905.4	191.3
113	1.381	7782	886.8	192.2	7837	892.5	193.6	7892	898.2	194.9	7948	904.0	196.3
112	1.342	7773	885.4	197.3	7828	891.1	198.7	7883	896.8	200.1	7938	902.5	201.5
111	1.304	7763	884.0	202.5	7819	889.7	204.0	7874	895.4	205.4	7929	901.1	206.9
110	1.266	7755	882.5	207.9	7809	888.2	209.4	7864	893.9	210.8	7919	899.6	212.3
109	1.230	7745	881.1	213.5	7800	886.8	215.0	7855	892.5	216.5	7909	898.2	218.0
108	1.195	7736	879.7	219.2	7790	885.4	220.7	7845	891.0	222.3	7900	896.7	223.8
107	1.160	7726	878.3	225.0	7781	884.0	226.6	7835	889.6	228.2	7890	895.3	229.8
106	1.127	7717	876.8	231.1	7772	882.5	232.7	7826	888.1	234.3	7880	893.8	235.9
105	1.094	7708	875.4	237.4	7763	881.1	239.1	7817	886.7	240.8	7871	892.4	242.4
104	1.062	7699	874.0	243.9	7753	879.6	245.6	7807	885.2	247.3	7861	890.9	249.0
103	1.031	7690	872.6	250.6	7744	878.2	252.4	7798	883.8	254.1	7851	889.5	255.9
102	1.000	7680	871.1	257.4	7734	876.8	259.3	7788	882.4	261.1	7842	888.0	262.9
101	0.971	7672	869.7	264.5	7726	875.3	266.4	7779	880.9	268.2	7833	886.5	270.1
100	0.942	7662	868.3	271.8	7716	873.8	273.7	7769	879.4	275.6	7823	885.0	277.5
99	0.914	7653	866.9	279.5	7707	872.4	281.4	7760	878.0	283.4	7813	883.6	285.3
98	0.887	7644	865.4	287.3	7697	871.0	289.3	7751	876.5	291.3	7804	882.1	293.3
97	0.860	7635	864.0	295.4	7688	869.6	297.4	7741	875.1	299.5	7794	880.7	301.6
96	0.834	7626	862.6	303.8	7679	868.2	305.9	7732	873.7	308.1	7785	879.3	310.2
95	0.809	7617	861.2	312.4	7670	866.8	314.6	7723	872.3	316.8	7776	877.9	319.0
94	0.784	7608	859.7	321.3	7660	865.3	323.6	7713	870.8	325.8	7766	876.4	328.0
93	0.761	7598	858.3	330.5	7651	863.9	332.8	7704	869.4	335.1	7756	874.9	337.4
92	0.737	7589	856.9	340.1	7641	862.4	342.4	7694	867.9	344.8	7746	873.4	347.1
91	0.715	7579	855.4	349.9	7632	860.9	352.4	7684	866.4	354.8	7737	871.9	357.2
90	0.693	7570	853.9	360.0	7622	859.4	362.5	7675	864.9	365.0	7727	870.4	367.5
89	0.671	7561	852.5	370.5	7613	858.0	373.0	7665	863.5	375.6	7717	868.9	378.1
88	0.650	7551	851.0	381.2	7603	856.5	383.8	7655	862.0	386.4	7707	867.4	389.1
87	0.630	7542	849.5	392.5	7594	855.1	395.2	7646	860.5	397.9	7698	866.0	400.6
		7532	848.1	404.1	7585	853.6	406.8	7637	859.0	409.6	7688	864.5	412.4

Temperature Degrees Fahrenheit	Pressure, Pounds per Square Inch.	1.61			1.62			1.63		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific
420	308.6	134	1289	1.872	152	1298	1.920	172	1309	2.0
419	305.2	132	1287	1.888	150	1297	1.935	170	1307	2.0
418	301.9	131	1286	1.903	149	1296	1.952	169	1306	2.0
417	298.7	129	1285	1.920	147	1294	1.969	167	1305	2.0
416	295.4	128	1284	1.935	146	1293	1.984	166	1304	2.0
415	292.2	127	1283	1.951	144	1292	2.002	164	1303	2.0
414	289.0	125	1281	1.969	143	1291	2.019	163	1302	2.1
413	285.9	124	1280	1.986	142	1290	2.036	161	1300	2.1
412	282.7	122	1279	2.003	140	1289	2.053	160	1299	2.1
411	279.6	121	1278	2.020	139	1288	2.071	158	1298	2.1
410	276.5	119	1277	2.036	137	1287	2.089	157	1297	2.1
409	273.5	118	1276	2.054	136	1286	2.106	155	1296	2.2
408	270.5	117	1275	2.072	134	1284	2.124	154	1295	2.2
407	267.5	115	1273	2.090	133	1283	2.141	152	1294	2.2
406	264.5	114	1272	2.109	131	1282	2.160	151	1293	2.2
405	261.6	112	1271	2.127	130	1281	2.178	149	1291	2.2
404	258.6	111	1270	2.145	129	1280	2.197	148	1290	2.3
403	255.7	110	1269	2.164	127	1279	2.216	146	1289	2.3
402	252.9	108	1268	2.183	126	1278	2.235	145	1288	2.3
401	250.0	107	1267	2.202	124	1276	2.254	143	1287	2.3
400	247.2	105	1266	2.220	123	1275	2.273	142	1286	2.3
399	244.4	104	1265	2.240	121	1274	2.292	140	1284	2.3
398	241.7	103	1264	2.260	120	1273	2.312	139	1283	2.3
397	238.9	101	1262	2.280	118	1272	2.332	137	1282	2.3
396	236.2	100	1261	2.301	117	1271	2.352	136	1281	2.3
395	233.5	98	1260	2.322	115	1269	2.374	134	1280	2.3
394	230.8	97	1259	2.343	114	1268	2.395	133	1279	2.3
393	228.2	96	1258	2.365	113	1267	2.416	131	1277	2.3
392	225.6	94	1257	2.387	111	1266	2.437	130	1276	2.3
391	223.0	93	1256	2.409	110	1265	2.459	128	1275	2.3
390	220.4	92	1255	2.430	108	1264	2.482	127	1274	2.3
389	217.8	90	1253	2.450	107	1263	2.504	125	1273	2.3
388	215.3	89	1252	2.472	105	1261	2.526	123	1271	2.3
387	212.8	87	1251	2.494	104	1260	2.550	122	1270	2.3
386	210.3	86	1250	2.518	102	1259	2.572	120	1269	2.3
385	207.9	84	1249	2.540	101	1258	2.595	119	1268	2.3
384	205.4	83	1248	2.563	99	1257	2.620	117	1267	2.3
383	203.0	82	1247	2.586	98	1256	2.643	116	1266	2.3
382	200.6	80	1246	2.610	97	1255	2.669	114	1264	2.3
381	198.3	79	1245	2.623	95	1254	2.693	113	1263	2.3
380	195.9	77	1243	2.656	94	1253	2.717	111	1262	2.3
379	193.6	76	1242	2.680	92	1251	2.744	110	1261	2.3
378	191.3	75	1241	2.706	91	1250	2.769	108	1259	2.3
377	189.0	73	1240	2.730	89	1249	2.794	107	1258	2.3
376	186.7	72	1239	2.757	88	1248	2.820	105	1257	2.3
375	184.5	70	1238	2.781	86	1247	2.849	104	1256	2.3
374	182.3	69	1237	2.804	85	1246	2.874	103	1255	2.3
373	180.1	68	1236	2.828	84	1245	2.899	102	1254	2.3
372	177.9	67	1235	2.853	83	1244	2.924	101	1253	2.3
371	175.7	66	1234	2.878	82	1243	2.949	100	1252	2.3
370	173.5	65	1233	2.903	81	1242	2.974	99	1251	2.3
369	171.3	64	1232	2.928	80	1241	2.999	98	1250	2.3
368	169.1	63	1231	2.953	79	1240	3.024	97	1249	2.3
367	166.9	62	1230	2.978	78	1239	3.049	96	1248	2.3
366	164.7	61	1229	2.999	77	1238	3.074	95	1247	2.3
365	162.5	60	1228	3.024	76	1237	3.099	94	1246	2.3
364	160.3	59	1227	3.049	75	1236	3.124	93	1245	2.3
363	158.1	58	1226	3.074	74	1235	3.149	92	1244	2.3
362	155.9	57	1225	3.100	73	1234	3.174	91	1243	2.3
361	153.7	56	1224	3.125	72	1233	3.199	90	1242	2.3
360	151.5	55	1223	3.150	71	1232	3.224	89	1241	2.3
359	149.3	54	1222	3.175	70	1231	3.249	88	1240	2.3
358	147.1	53	1221	3.200	69	1230	3.274	87	1239	2.3
357	144.9	52	1220	3.225	68	1229	3.299	86	1238	2.3
356	142.7	51	1219	3.250	67	1228	3.324	85	1237	2.3
355	140.5	50	1218	3.275	66	1227	3.349	84	1236	2.3
354	138.3	49	1217	3.300	65	1226	3.374	83	1235	2.3
353	136.1	48	1216	3.325	64	1225	3.399	82	1234	2.3
352	133.9	47	1215	3.350	63	1224	3.424	81	1233	2.3
351	131.7	46	1214	3.375	62	1223	3.449	80	1232	2.3
350	129.5	45	1213	3.400	61	1222	3.474	79	1231	2.3
349	127.3	44	1212	3.425	60	1221	3.499	78	1230	2.3
348	125.1	43	1211	3.450	59	1220	3.524	77	1229	2.3
347	122.9	42	1210	3.475	58	1219	3.549	76	1228	2.3
346	120.7	41	1209	3.500	57	1218	3.574	75	1227	2.3
345	118.5	40	1208	3.525	56	1217	3.599	74	1226	2.3
344	116.3	39	1207	3.550	55	1216	3.624	73	1225	2.3
343	114.1	38	1206	3.575	54	1215	3.649	72	1224	2.3
342	111.9	37	1205	3.600	53	1214	3.674	71	1223	2.3
341	109.7	36	1204	3.625	52	1213	3.699	70	1222	2.3
340	107.5	35	1203	3.650	51	1212	3.724	69	1221	2.3
339	105.3	34	1202	3.675	50	1211	3.749	68	1220	2.3
338	103.1	33	1201	3.700	49	1210	3.774	67	1219	2.3
337	100.9	32	1200	3.725	48	1209	3.799	66	1218	2.3
336	98.7	31	1199	3.750	47	1208	3.824	65	1217	2.3
335	96.5	30	1198	3.775	46	1207	3.849	64	1216	2.3
334	94.3	29	1197	3.800	45	1206	3.874	63	1215	2.3
333	92.1	28	1196	3.825	44	1205	3.899	62	1214	2.3
332	89.9	27	1195	3.850	43	1204	3.924	61	1213	2.3
331	87.7	26	1194	3.875	42	1203	3.949	60	1212	2.3
330	85.5	25	1193	3.900	41	1202	3.974	59	1211	2.3
329	83.3	24	1192	3.925	40	1201	3.999	58	1210	2.3
328	81.1	23	1191	3.950	39	1200	4.024	57	1209	2.3
327	78.9	22	1190	3.975	38	1199	4.049	56	1208	2.3
326	76.7	21	1189	3.999	37	1198	4.074	55	1207	2.3
325	74.5	20	1188	4.024	36	1197	4.099	54	1206	2.3
324	72.3	19	1187	4.049	35	1196	4.124	53	1205	2.3
323	70.1	18	1186	4.074	34	1195	4.149	52	1204	2.3
322	67.9	17	1185	4.099	33	1194	4.174	51	1203	2.3
321	65.7	16	1184	4.125	32	1193	4.199	50	1202	2.3
320	63.5	15	1183	4.150	31	1192	4.224	49	1201	2.3
319	61.3	14	1182	4.175	30	1191	4.249	48	1200	2.3
318	59.1	13	1181	4.200	29	1190	4.274	47	1199	2.3
317	56.9	12	1180	4.225	28	1189	4.299	46	1198	2.3
316	54.7	11	1179	4.250	27	1188	4.324	45	1197	2.3
315	52.5	10	1178	4.275	26	1187	4.349	44	1196	2.3
314	50.3	9	1177	4.300	25	1186	4.374	43	1195	2.3
313	48.1	8	1176	4.325	24	1185	4.399	42	1194	2.3
312	45.9	7	1175	4.350	23	1184	4.424	41	1193	2.3
311	43.7	6	1174	4.375	22	1183	4.449	40	1192	2.3
310	41.5	5	1173	4.400	21	1182	4.474	39	1191	2.3
309	39.3	4	1172	4.425	20	1181	4.499	38	1190	2.3
308	37.1	3	1171	4.450	19	1180	4.524	37	1189	2.3
307	34.9	2	1170	4.475	18	1179	4.549	36	1188	2.3
306	32.7	1	1169	4.500	17	1178	4.574	35	1187	2.3
305	30.5	0	1168	4.525	16	1177	4.599	34	1186	2.3
304	28.3		1167	4.550	15	1176	4.624	33	1185	2.3
303	26.1		1166	4.575	14	1175	4.649	32	1184	2.3
302	23.9		1165	4.600	13	1174	4.674	31	1183	2.3
301	21.7		1164	4.625	12	1173	4.699	30	1182	2.3
300	19.5		1163	4.650	11	1172	4.724	29	1181	2.3
299	17.3		1162	4.675	10	1171	4.749			

TEMPERATURE-ENTROPY TABLE.

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.64			1.65			1.66			Quality.
		Quality	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	
420	308.6	212	1330	2.065	233	1341	2.117	255	1352	2.166	277
419	305.2	210	1328	2.082	231	1339	2.133	254	1351	2.184	275
418	301.9	209	1327	2.099	230	1338	2.151	252	1349	2.202	273
417	298.7	207	1326	2.116	228	1337	2.170	250	1348	2.220	272
416	295.4	206	1325	2.133	226	1335	2.186	248	1347	2.238	270
415	292.2	204	1324	2.150	224	1334	2.204	247	1346	2.256	268
414	289.0	202	1322	2.169	223	1333	2.222	245	1345	2.274	266
413	285.9	201	1321	2.186	221	1332	2.240	243	1343	2.293	264
412	282.7	199	1320	2.204	219	1330	2.260	241	1342	2.311	263
411	279.6	198	1319	2.222	218	1329	2.278	240	1341	2.330	261
410	276.5	196	1318	2.240	216	1328	2.296	238	1339	2.349	259
409	273.5	194	1316	2.260	214	1326	2.314	236	1338	2.369	257
408	270.5	193	1315	2.279	213	1325	2.333	234	1336	2.389	256
407	267.5	191	1314	2.297	211	1324	2.352	233	1335	2.408	254
406	264.5	189	1313	2.316	209	1323	2.372	231	1334	2.428	252
405	261.6	188	1312	2.335	208	1322	2.392	229	1333	2.449	250
404	258.6	186	1310	2.354	206	1320	2.412	227	1331	2.469	248
403	255.7	185	1309	2.374	204	1319	2.433	226	1330	2.490	246
402	252.9	183	1308	2.394	203	1318	2.454	224	1329	2.511	245
401	250.0	181	1307	2.415	201	1317	2.475	222	1328	2.533	243
400	247.2	180	1306	2.437	199	1315	2.496	221	1327	2.554	241
399	244.4	178	1304	2.459	198	1314	2.518	219	1326	2.577	239
398	241.7	176	1303	2.480	196	1313	2.539	217	1324	2.600	237
397	238.9	175	1302	2.502	194	1312	2.560	215	1323	2.620	236
396	236.2	173	1301	2.523	193	1311	2.582	213	1321	2.644	234
395	233.5	172	1300	2.546	191	1309	2.605	212	1320	2.668	232
394	230.8	170	1298	2.569	189	1308	2.629	210	1319	2.690	230
393	228.2	168	1297	2.591	188	1307	2.650	208	1318	2.715	228
392	225.6	167	1296	2.614	186	1306	2.675	207	1317	2.740	227
391	223.0	165	1295	2.638	184	1304	2.700	205	1315	2.764	225
390	220.4	163	1293	2.660	183	1303	2.724	203	1314	2.788	223
389	217.8	162	1292	2.685	181	1302	2.748	201	1312	2.815	221
388	215.3	160	1291	2.710	179	1300	2.772	200	1311	2.840	220
387	212.8	159	1290	2.734	177	1299	2.798	198	1310	2.866	218
386	210.3	157	1289	2.759	176	1298	2.822	196	1309	2.892	216
385	207.9	155	1287	2.784	174	1297	2.850	194	1307	2.919	214
384	205.4	154	1286	2.809	173	1296	2.876	193	1306	2.945	212
383	203.0	152	1285	2.835	171	1295	2.902	191	1305	2.973	210
382	200.6	150	1283	2.861	169	1293	2.930	189	1304	3.000	209
381	198.3	149	1282	2.889	167	1292	2.958	187	1302	3.029	207
380	195.9	147	1281	2.914	166	1291	2.984	186	1301	3.056	205

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.60			1.61			1.62			1.63		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
372	177.9	66	1235	2.860	82	1243	2.927	99	1253	2.996	116	1262	3.060
371	175.7	65	1234	2.888	81	1242	2.954	98	1252	3.024	115	1261	3.087
370	173.6	63	1232	2.914	79	1241	2.980	96	1250	3.052	113	1259	3.017
369	171.5	62	1231	2.941	78	1240	3.010	94	1249	3.080	111	1258	3.147
368	169.4	61	1230	2.970	76	1239	3.039	93	1248	3.110	100	1257	3.177
367	167.3	59	1229	2.998	75	1238	3.069	91	1246	3.140	108	1256	3.206
366	165.3	58	1228	3.027	73	1236	3.098	90	1245	3.170	107	1255	3.237
365	163.2	56	1226	3.055	72	1235	3.127	88	1244	3.200	105	1253	3.267
364	161.2	55	1226	3.084	70	1234	3.155	87	1243	3.229	104	1252	3.300
363	159.2	54	1225	3.114	69	1233	3.185	85	1242	3.260	102	1251	3.332
362	157.2	52	1223	3.142	67	1232	3.215	84	1241	3.291	100	1250	3.364
361	155.3	51	1222	3.175	66	1231	3.246	82	1239	3.322	99	1249	3.397
360	153.3	49	1221	3.206	65	1230	3.277	81	1238	3.354	97	1247	3.430
359	151.4	48	1220	3.238	63	1228	3.310	79	1237	3.388	96	1246	3.463
358	149.5	46	1218	3.269	62	1227	3.340	78	1236	3.422	94	1245	3.498
357	147.6	45	1217	3.300	60	1226	3.374	76	1235	3.457	93	1244	3.532
356	145.8	44	1216	3.333	59	1225	3.406	75	1234	3.490	91	1243	3.569
355	143.9	42	1215	3.366	57	1224	3.440	73	1233	3.525	89	1241	3.605
354	142.1	41	1214	3.399	56	1223	3.473	72	1232	3.561	88	1240	3.641
353	140.3	39	1213	3.433	54	1221	3.509	70	1230	3.597	86	1239	3.680
352	138.5	38	1212	3.467	53	1220	3.543	69	1229	3.633	85	1238	3.716
351	136.7	37	1211	3.500	51	1219	3.579	67	1228	3.670	83	1237	3.754
350	135.0	35	1209	3.536	50	1218	3.615	66	1227	3.707	82	1236	3.790
349	133.2	34	1208	3.571	49	1217	3.651	64	1226	3.745	80	1234	3.829
348	131.5	32	1207	3.608	47	1216	3.690	63	1225	3.782	78	1233	3.867
347	129.8	31	1206	3.644	46	1215	3.727	61	1223	3.820	77	1232	3.906
346	128.1	30	1205	3.680	44	1213	3.761	59	1222	3.860	75	1231	3.945
345	126.4	28	1204	3.719	43	1212	3.800	58	1221	3.898	74	1230	3.985
344	124.8	27	1203	3.758	41	1211	3.840	56	1219	3.939	72	1229	4.024
343	123.2	25	1201	3.795	40	1210	3.880	55	1218	3.979	71	1228	4.063
342	121.5	24	1200	3.833	38	1209	3.920	53	1217	4.019	69	1226	4.105
341	119.9	23	1199	3.873	37	1208	3.960	52	1216	4.059	67	1225	4.145
340	118.4	21	1198	3.913	36	1207	4.000	50	1215	4.099	66	1224	4.188
339	116.8	20	1197	3.951	34	1206	4.040	49	1214	4.140	64	1222	4.230
338	115.2	18	1196	3.996	33	1205	4.080	47	1213	4.181	63	1221	4.275
337	113.7	17	1195	4.040	31	1203	4.120	46	1212	4.223	61	1220	4.320
336	112.2	16	1194	4.080	30	1202	4.165	44	1210	4.269	60	1219	4.365
335	110.7	14	1192	4.122	28	1201	4.209	43	1209	4.310	58	1218	4.410
334	109.2	13	1191	4.168	27	1200	4.250	41	1208	4.355	56	1216	4.458
333	107.7	11	1190	4.210	25	1198	4.295	40	1207	4.400	55	1215	4.503
332	106.3	10	1189	4.255	24	1197	4.343	38	1206	4.447	53	1214	4.551
331	104.8	9	1188	4.300	22	1196	4.390	37	1205	4.495	52	1213	4.600
330	103.4	7	1187	4.345	21	1195	4.435	35	1203	4.542	50	1212	4.646
329	102.0	6	1186	4.390	20	1194	4.485	34	1202	4.590	49	1211	4.695
328	100.6	4	1184	4.440	18	1193	4.533	32	1201	4.635	47	1209	4.747
327	99.2	3	1183	4.490	17	1192	4.580	31	1200	4.680	46	1208	4.790

Pressure, Pounds per Square Inch.	1.62			1.63			1.66			1.67		
	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
177.9	134	1271	3.142	152	1281	3.215	172	1291	3.287	191	1301	3.360
175.7	133	1270	3.171	151	1280	3.243	170	1290	3.315	189	1300	3.390
173.6	131	1269	3.200	149	1279	3.272	168	1288	3.345	187	1298	3.421
171.5	129	1267	3.230	147	1277	3.303	166	1287	3.377	185	1297	3.453
169.4	128	1266	3.260	146	1276	3.334	165	1286	3.409	183	1295	3.487
167.3	126	1265	3.290	144	1275	3.365	163	1285	3.440	181	1294	3.519
165.3	124	1264	3.320	142	1274	3.395	161	1283	3.470	180	1293	3.550
163.2	123	1263	3.350	141	1273	3.429	159	1282	3.503	178	1292	3.584
161.2	121	1261	3.383	139	1271	3.461	158	1281	3.538	176	1290	3.618
159.2	120	1260	3.414	137	1270	3.495	156	1280	3.570	174	1289	3.650
157.2	118	1259	3.447	135	1269	3.527	154	1278	3.604	172	1288	3.685
155.3	116	1258	3.480	134	1268	3.560	152	1277	3.638	171	1287	3.720
153.3	115	1257	3.512	132	1266	3.594	151	1276	3.673	169	1285	3.755
151.4	113	1255	3.545	130	1265	3.628	149	1275	3.707	167	1284	3.790
149.5	111	1254	3.580	129	1264	3.662	147	1273	3.740	165	1283	3.828
147.6	110	1253	3.615	127	1263	3.699	145	1272	3.779	163	1281	3.865
145.8	108	1252	3.650	125	1261	3.735	144	1271	3.813	162	1280	3.903
143.9	107	1251	3.685	124	1260	3.771	142	1269	3.850	160	1279	3.939
142.1	105	1249	3.720	122	1259	3.806	140	1268	3.886	158	1277	3.978
140.3	103	1248	3.757	120	1258	3.843	138	1267	3.931	156	1276	4.019
138.5	102	1247	3.795	119	1257	3.882	137	1266	3.970	154	1275	4.058
136.7	100	1246	3.832	117	1255	3.920	135	1264	4.010	153	1274	4.097
135.0	98	1244	3.870	115	1254	3.960	133	1263	4.050	151	1272	4.137
133.2	97	1243	3.910	114	1253	3.999	131	1262	4.090	149	1271	4.179
131.5	95	1242	3.949	112	1252	4.038	130	1261	4.130	147	1270	4.222
129.8	93	1241	3.990	100	1250	4.079	128	1259	4.172	145	1268	4.266
128.1	92	1240	4.030	109	1249	4.120	126	1258	4.215	144	1267	4.309
126.4	90	1238	4.070	107	1248	4.161	124	1257	4.258	142	1266	4.351
124.8	89	1237	4.110	105	1246	4.204	123	1256	4.300	140	1265	4.397
123.2	87	1236	4.152	104	1245	4.248	121	1254	4.345	138	1263	4.440
121.5	85	1235	4.198	102	1244	4.292	119	1253	4.392	136	1262	4.488
119.9	84	1234	4.240	100	1243	4.337	117	1252	4.440	135	1261	4.531
118.4	82	1232	4.284	99	1242	4.382	116	1251	4.486	133	1260	4.580
116.8	80	1231	4.330	97	1240	4.429	114	1249	4.533	131	1258	4.629
115.2	79	1230	4.375	95	1239	4.475	112	1248	4.580	129	1257	4.680
113.7	77	1229	4.420	93	1238	4.520	110	1246	4.630	127	1255	4.729
112.2	76	1228	4.465	92	1237	4.568	109	1245	4.677	126	1254	4.780
110.7	74	1226	4.510	90	1235	4.618	107	1244	4.725	124	1253	4.830
109.2	72	1225	4.560	88	1234	4.668	105	1243	4.773	122	1252	4.880
107.7	71	1224	4.607	87	1233	4.717	103	1241	4.820	120	1250	4.930
106.3	69	1223	4.655	85	1231	4.765	102	1240	4.870	118	1249	4.983
104.8	67	1221	4.705	83	1230	4.815	100	1239	4.920	116	1247	5.035
103.4	66	1220	4.755	82	1229	4.865	98	1237	4.970	115	1246	5.090
102.0	64	1219	4.805	80	1228	4.917	96	1236	5.020	113	1245	5.143
100.6	63	1218	4.855	78	1226	4.969	95	1235	5.072	111	1244	5.198
99.2	61	1217	4.905	77	1225	5.023	93	1234	5.125	109	1242	5.253
97.8	59	1215	4.960	75	1224	5.077	91	1232	5.178	107	1241	5.300

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.60			1.61			1.62			1.63		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	9991	1180.0	4.614	12	1188	4.737	26	1196	4.845	41	1205	4.955
323	93.8	9982	1178.9	4.670	11	1187	4.790	25	1195	4.900	39	1203	5.010
322	92.5	9973	1177.8	4.728	9	1186	4.845	23	1194	4.955	38	1202	5.066
321	91.2	9964	1176.6	4.786	8	1185	4.900	22	1193	5.010	36	1201	5.123
320	90.0	9956	1175.6	4.846	7	1184	4.957	20	1192	5.064	35	1200	5.179
319	88.7	9946	1174.4	4.904	5	1182	5.012	19	1191	5.122	33	1199	5.236
318	87.4	9937	1173.3	4.965	4	1181	5.068	17	1189	5.178	31	1197	5.294
317	86.2	9927	1172.1	5.027	2	1180	5.125	16	1188	5.237	30	1196	5.351
316	85.0	9917	1170.9	5.089	1	1179	5.182	14	1187	5.295	28	1195	5.410
315	83.8	9909	1169.8	5.153	9995	1177.5	5.199	13	1186	5.353	27	1194	5.470
314	82.6	9899	1168.7	5.219	9986	1176.4	5.265	11	1184	5.412	25	1193	5.530
313	81.4	9890	1167.6	5.284	9976	1175.3	5.330	10	1183	5.473	24	1192	5.590
312	80.2	9880	1166.4	5.351	9967	1174.1	5.398	8	1182	5.537	22	1190	5.655
311	79.1	9871	1165.3	5.419	9957	1173.0	5.466	7	1181	5.599	20	1189	5.718
310	77.9	9862	1164.1	5.487	9948	1171.8	5.535	5	1180	5.663	19	1188	5.780
309	76.8	9852	1163.0	5.557	9938	1170.6	5.605	4	1179	5.729	17	1186	5.850
308	75.7	9843	1161.8	5.628	9928	1169.5	5.677	2	1177	5.793	16	1185	5.910
307	74.6	9833	1160.6	5.701	9919	1168.3	5.751	1	1176	5.860	14	1184	5.980
306	73.5	9825	1159.5	5.775	9910	1167.2	5.825	9995	1174.8	5.875	13	1183	6.04
305	72.4	9814	1158.3	5.848	9899	1165.9	5.899	9984	1173.6	5.950	11	1182	6.11
304	71.4	9805	1157.1	5.924	9890	1164.8	5.975	9974	1172.4	6.026	10	1181	6.18
303	70.3	9796	1156.0	6.001	9881	1163.7	6.053	9965	1171.3	6.105	8	1179	6.25
302	69.3	9787	1154.9	6.080	9871	1162.5	6.133	9956	1170.1	6.185	6	1178	6.33
301	68.2	9778	1153.7	6.160	9862	1161.3	6.213	9947	1168.9	6.266	5	1177	6.40
300	67.2	9769	1152.5	6.240	9853	1160.1	6.294	9937	1167.7	6.348	3	1175	6.48
299	66.2	9760	1151.4	6.323	9844	1159.0	6.378	9928	1166.6	6.432	2	1174	6.57
298	65.2	9750	1150.2	6.407	9834	1157.8	6.462	9918	1165.4	6.517	0	1173	6.65
297	64.3	9741	1149.0	6.492	9824	1156.6	6.548	9908	1164.2	6.603	9991	1171.7	6.659
296	63.3	9731	1147.8	6.578	9814	1155.4	6.634	9898	1162.9	6.691	9981	1170.5	6.747
295	62.3	9722	1146.7	6.667	9805	1154.3	6.724	9889	1161.8	6.781	9972	1169.3	6.838
294	61.4	9713	1145.5	6.756	9796	1153.1	6.814	9879	1160.6	6.872	9962	1168.1	6.929
293	60.5	9704	1144.4	6.847	9787	1151.9	6.906	9870	1159.4	6.964	9952	1166.9	7.022
292	59.5	9694	1143.2	6.940	9777	1150.7	6.999	9859	1158.2	7.058	9942	1165.7	7.118
291	58.6	9685	1142.0	7.034	9768	1149.6	7.093	9850	1157.1	7.153	9933	1164.5	7.213
290	57.7	9676	1140.9	7.129	9758	1148.4	7.189	9840	1155.9	7.249	9923	1163.3	7.310
289	56.8	9667	1139.7	7.227	9749	1147.2	7.287	9831	1154.7	7.349	9913	1162.1	7.410
288	56.0	9656	1138.5	7.326	9738	1146.0	7.387	9820	1153.5	7.449	9902	1160.9	7.512
287	55.1	9647	1137.3	7.426	9729	1144.8	7.488	9811	1152.3	7.551	9893	1159.7	7.614
286	54.2	9638	1136.2	7.529	9720	1143.6	7.591	9802	1151.1	7.655	9883	1158.5	7.719
285	53.4	9629	1135.0	7.633	9711	1142.4	7.697	9792	1150.9	7.761	9874	1157.3	7.826
284	52.6	9619	1133.8	7.737	9700	1141.2	7.802	9781	1148.6	7.867	9863	1156.1	7.932
283	51.7	9610	1132.6	7.844	9691	1140.0	7.910	9772	1147.4	7.976	9853	1154.9	8.042
282	50.9	9601	1131.4	7.955	9682	1138.8	8.022	9763	1146.2	8.088	9844	1153.7	8.155
281	50.1	9593	1130.3	8.069	9674	1137.6	8.137	9754	1145.1	8.203	9835	1152.5	8.271
280	49.33	9584	1129.1	8.182	9664	1136.5	8.251	9745	1143.9	8.318	9826	1151.3	8.387

Temperature Degrees F.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	56	1213	5.065	72	1222	5.185	88	1230	5.295	104	1239	5.420
323	93.8	54	1211	5.119	70	1220	5.237	86	1229	5.350	102	1237	5.478
322	92.5	53	1210	5.173	68	1219	5.297	84	1227	5.405	100	1236	5.533
321	91.2	51	1209	5.230	67	1228	5.357	83	1226	5.465	98	1234	5.590
320	90.0	50	1208	5.289	65	1227	5.415	81	1225	5.530	97	1233	5.650
319	88.7	48	1207	5.347	63	1225	5.475	79	1224	5.590	95	1232	5.710
318	87.4	46	1206	5.405	61	1224	5.535	77	1222	5.650	93	1231	5.770
317	86.2	45	1205	5.465	60	1223	5.595	76	1221	5.715	91	1229	5.835
316	85.0	43	1203	5.520	58	1221	5.655	74	1220	5.780	89	1228	5.900
315	83.8	41	1202	5.585	56	1220	5.715	72	1218	5.840	88	1226	5.965
314	82.6	40	1201	5.645	55	1209	5.779	70	1217	5.900	86	1225	6.03
313	81.4	38	1199	5.705	53	1208	5.840	68	1216	5.965	84	1224	6.10
312	80.2	36	1198	5.767	51	1206	5.905	67	1215	6.035	82	1223	6.17
311	79.1	35	1197	5.830	50	1205	5.970	65	1213	6.10	80	1221	6.24
310	77.9	33	1196	5.899	48	1204	6.035	63	1212	6.18	79	1220	6.31
309	76.8	32	1195	5.966	46	1202	6.10	61	1210	6.25	77	1219	6.39
308	75.7	30	1193	6.04	45	1201	6.17	60	1209	6.31	75	1218	6.46
307	74.6	28	1192	6.10	43	1200	6.24	58	1208	6.39	73	1216	6.53
306	73.5	27	1191	6.17	41	1199	6.32	57	1207	6.46	71	1215	6.60
305	72.4	25	1190	6.25	40	1198	6.39	55	1206	6.54	70	1214	6.67
304	71.4	23	1188	6.33	38	1196	6.46	53	1204	6.61	68	1213	6.75
303	70.3	22	1187	6.40	36	1195	6.54	51	1203	6.69	66	1211	6.84
302	69.3	20	1186	6.47	35	1194	6.62	50	1202	6.76	64	1210	6.92
301	68.2	19	1185	6.55	33	1193	6.70	48	1201	6.84	62	1208	6.99
300	67.2	17	1183	6.63	31	1191	6.77	46	1199	6.92	61	1207	7.07
299	66.2	15	1182	6.70	30	1190	6.85	44	1198	7.00	59	1206	7.15
298	65.2	14	1181	6.79	28	1189	6.93	43	1197	7.08	57	1205	7.24
297	64.3	12	1179	6.87	26	1188	7.01	41	1196	7.16	55	1203	7.33
296	63.3	10	1178	6.94	25	1187	7.10	39	1194	7.24	54	1202	7.40
295	62.3	9	1177	7.03	23	1185	7.19	37	1193	7.33	52	1201	7.49
294	61.4	7	1176	7.12	21	1184	7.27	36	1192	7.41	50	1200	7.58
293	60.5	6	1175	7.20	20	1183	7.35	34	1191	7.50	48	1198	7.67
292	59.5	4	1173	7.29	18	1181	7.44	32	1189	7.59	46	1197	7.76
291	58.6	2	1172	7.38	16	1180	7.53	30	1188	7.68	44	1196	7.85
290	57.7	1	1171	7.46	14	1178	7.63	29	1187	7.77	43	1195	7.95
289	56.8	9995	1169.5	7.471	13	1177	7.72	27	1185	7.86	41	1193	8.04
288	56.0	9984	1168.3	7.574	11	1176	7.81	25	1184	7.96	39	1192	8.14
287	55.1	9974	1167.1	7.677	9	1175	7.91	23	1183	8.05	37	1190	8.24
286	54.2	9965	1166.0	7.782	8	1174	8.00	22	1182	8.15	36	1189	8.33
285	53.4	9955	1165.7	7.890	6	1172	8.10	20	1180	8.25	34	1188	8.43
284	52.6	9944	1163.4	7.993	4	1171	8.20	18	1179	8.35	32	1187	8.54
283	51.7	9934	1162.2	8.108	3	1170	8.30	16	1178	8.45	30	1185	8.64
282	50.9	9924	1161.1	8.222	1	1169	8.39	15	1177	8.56	29	1184	8.74
281	50.1	9916	1159.9	8.339	9997	1167.4	8.407	13	1175	8.66	27	1183	8.84
280	49.33	9906	1158.7	8.456	9987	1166.1	8.525	11	1174	8.77	25	1182	8.95
279	48.55	9895	1157.4	8.573	9975	1164.8	8.642	9	1172	8.88	23	1180	9.05
278	47.77	9885	1156.1	8.695	9965	1163.5	8.765	8	1171	8.99	21	1179	9.17
277	47.01	9875	1154.9	8.819	9955	1162.3	8.890	6	1170	9.10	20	1178	9.29

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.61			1.62			1.63		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	9546	1124.3	8.655	9626	1131.7	8.728	9706	1139.0	8.799
275	45.52	9536	1123.1	8.778	9616	1130.5	8.851	9695	1137.8	8.924
274	44.78	9527	1121.9	8.904	9606	1129.2	8.978	9686	1136.5	9.051
273	44.06	9518	1120.7	9.032	9597	1128.0	9.108	9676	1135.3	9.182
272	43.35	9509	1119.5	9.164	9588	1126.8	9.241	9667	1134.1	9.316
271	42.64	9499	1118.3	9.296	9579	1125.6	9.374	9658	1132.9	9.450
270	41.95	9489	1117.1	9.431	9568	1124.3	9.509	9647	1131.6	9.586
269	41.26	9480	1115.9	9.567	9559	1123.2	9.646	9638	1130.4	9.724
268	40.58	9471	1114.7	9.709	9550	1122.0	9.789	9628	1129.2	9.869
267	39.91	9462	1113.5	9.851	9540	1120.8	9.932	9619	1128.0	10.02
266	39.26	9452	1112.2	9.991	9530	1119.5	10.07	9608	1126.7	10.16
265	38.60	9442	1111.0	10.14	9520	1118.3	10.22	9598	1125.5	10.31
264	37.96	9433	1109.8	10.29	9511	1117.0	10.38	9589	1124.3	10.46
263	37.33	9424	1108.6	10.44	9502	1115.8	10.53	9579	1123.1	10.61
262	36.71	9415	1107.4	10.60	9492	1114.6	10.69	9570	1121.8	10.78
261	36.09	9406	1106.2	10.76	9484	1113.4	10.85	9561	1120.6	10.94
260	35.48	9397	1105.0	10.92	9474	1112.2	11.01	9551	1119.4	11.10
259	34.88	9387	1103.8	11.09	9464	1109.9	11.18	9541	1118.1	11.27
258	34.29	9377	1102.5	11.25	9454	1109.6	11.35	9531	1116.8	11.44
257	33.71	9369	1101.3	11.42	9445	1108.5	11.52	9522	1115.6	11.61
256	33.14	9359	1100.1	11.60	9436	1107.3	11.69	9512	1114.4	11.79
255	32.57	9349	1098.9	11.78	9425	1106.0	11.88	9502	1113.1	11.97
254	32.01	9340	1097.6	11.96	9416	1104.7	12.06	9492	1111.8	12.16
253	31.46	9330	1096.4	12.15	9406	1103.5	12.25	9482	1110.6	12.34
252	30.92	9322	1095.2	12.34	9397	1102.3	12.44	9473	1109.4	12.54
251	30.38	9312	1094.0	12.53	9388	1101.1	12.64	9463	1108.2	12.74
250	29.86	9303	1092.7	12.73	9378	1099.8	12.83	9454	1106.9	12.93
249	29.34	9293	1091.5	12.93	9368	1098.6	13.03	9444	1105.6	13.14
248	28.82	9283	1090.2	13.13	9359	1097.3	13.23	9434	1104.3	13.34
247	28.32	9275	1089.0	13.33	9350	1096.1	13.44	9425	1103.1	13.54
246	27.82	9265	1087.8	13.54	9340	1094.8	13.65	9415	1101.9	13.76
245	27.33	9256	1086.6	13.74	9330	1093.6	13.85	9405	1100.7	13.96
244	26.85	9247	1085.3	13.97	9321	1092.4	14.08	9396	1099.4	14.20
243	26.37	9237	1084.1	14.20	9312	1091.2	14.31	9386	1098.2	14.43
242	25.90	9228	1082.9	14.42	9303	1089.9	14.54	9377	1096.9	14.66
241	25.44	9219	1081.6	14.66	9293	1088.6	14.78	9367	1095.6	14.89
240	24.98	9210	1080.3	14.89	9284	1087.3	15.01	9358	1094.3	15.13
239	24.53	9200	1079.1	15.13	9274	1086.1	15.26	9348	1093.1	15.38
238	24.09	9191	1077.8	15.39	9265	1084.8	15.51	9339	1091.8	15.63
237	23.66	9182	1076.6	15.64	9255	1083.6	15.76	9329	1090.6	15.89
236	23.23	9173	1075.4	15.90	9246	1082.3	16.02	9319	1089.3	16.15
235	22.80	9163	1074.1	16.15	9236	1081.0	16.28	9309	1088.0	16.41
234	22.39	9153	1072.8	16.42	9226	1079.7	16.55	9299	1086.6	16.68
233	21.98	9144	1071.6	16.70	9217	1078.5	16.83	9290	1085.4	16.96
232	21.57	9134	1070.3	16.97	9207	1077.2	17.11	9280	1084.1	17.24
231	21.18	9125	1069.1	17.26	9198	1076.0	17.39	9270	1082.9	17.53
230	20.78	9116	1067.9	17.54	9189	1074.8	17.68	9260	1081.7	17.82
229	20.39	9107	1066.7	17.83	9180	1073.6	17.97	9250	1080.5	18.11
228	19.99	9098	1065.5	18.12	9171	1072.4	18.26	9240	1079.3	18.40
227	19.60	9089	1064.3	18.31	9162	1071.2	18.55	9230	1078.1	18.69
226	19.21	9080	1063.1	18.50	9153	1070.0	18.84	9220	1076.9	18.98
225	18.82	9071	1061.9	18.69	9144	1068.8	19.13	9210	1075.7	19.27
224	18.43	9062	1060.7	18.88	9135	1067.6	19.42	9200	1074.5	19.56
223	18.04	9053	1059.5	19.07	9126	1066.4	19.71	9190	1073.3	19.85
222	17.65	9044	1058.3	19.26	9117	1065.2	20.00	9180	1072.1	20.14
221	17.26	9035	1057.1	19.45	9108	1064.0	20.29	9170	1070.9	20.43
220	16.87	9026	1055.9	19.64	9099	1062.8	20.58	9160	1069.7	20.72
219	16.48	9017	1054.7	19.83	9090	1061.6	20.87	9150	1068.5	21.01
218	16.09	9008	1053.5	20.02	9081	1060.4	21.16	9140	1067.3	21.30
217	15.70	8999	1052.3	20.21	9072	1059.2	21.45	9130	1066.1	21.59
216	15.31	8990	1051.1	20.40	9063	1058.0	21.74	9120	1064.9	21.88
215	14.92	8981	1049.9	20.59	9054	1056.8	22.03	9110	1063.7	22.17
214	14.53	8972	1048.7	20.78	9045	1055.6	22.32	9100	1062.5	22.46
213	14.14	8963	1047.5	20.97	9036	1054.4	22.61	9090	1061.3	22.75
212	13.75	8954	1046.3	21.16	9027	1053.2	22.90	9080	1060.1	23.04
211	13.36	8945	1045.1	21.35	9018	1052.0	23.19	9070	1058.9	23.33
210	12.97	8936	1043.9	21.54	9009	1050.8	23.48	9060	1057.7	23.62
209	12.58	8927	1042.7	21.73	9000	1049.6	23.77	9050	1056.5	23.91
208	12.19	8918	1041.5	21.92	8991	1048.4	24.06	9040	1055.3	24.20
207	11.80	8909	1040.3	22.11	8982	1047.2	24.35	9030	1054.1	24.49
206	11.41	8900	1039.1	22.30	8973	1046.0	24.64	9020	1052.9	24.78
205	11.02	8891	1037.9	22.49	8964	1044.8	24.93	9010	1051.7	25.07
204	10.63	8882	1036.7	22.68	8955	1043.6	25.22	9000	1050.5	25.36
203	10.24	8873	1035.5	22.87	8946	1042.4	25.51	8990	1049.3	25.65
202	9.85	8864	1034.3	23.06	8937	1041.2	25.80	8980	1048.1	25.94
201	9.46	8855	1033.1	23.25	8928	1040.0	26.09	8970	1046.9	26.23
200	9.07	8846	1031.9	23.44	8919	1038.8	26.38	8960	1045.7	26.52
199	8.68	8837	1030.7	23.63	8910	1037.6	26.67	8950	1044.5	26.81
198	8.29	8828	1029.5	23.82	8901	1036.4	26.96	8940	1043.3	27.10
197	7.90	8819	1028.3	24.01	8892	1035.2	27.25	8930	1042.1	27.39
196	7.51	8810	1027.1	24.20	8883	1034.0	27.54	8920	1040.9	27.68
195	7.12	8801	1025.9	24.39	8874	1032.8	27.83	8910	1039.7	27.97
194	6.73	8792	1024.7	24.58	8865	1031.6	28.12	8900	1038.5	28.26
193	6.34	8783	1023.5	24.77	8856	1030.4	28.41	8890	1037.3	28.55
192	5.95	8774	1022.3	24.96	8847	1029.2	28.70	8880	1036.1	28.84
191	5.56	8765	1021.1	25.15	8838	1028.0	28.99	8870	1034.9	29.13
190	5.17	8756	1019.9	25.34	8829	1026.8	29.28	8860	1033.7	29.42
189	4.78	8747	1018.7	25.53	8820	1025.6	29.57	8850	1032.5	29.71
188	4.39	8738	1017.5	25.72	8811	1024.4	29.86	8840	1031.3	30.00
187	4.00	8729	1016.3	25.91	8802	1023.2	30.15	8830	1030.1	30.29
186	3.61	8720	1015.1	26.10	8793	1022.0	30.44	8820	1028.9	30.58
185	3.22	8711	1013.9	26.29	8784	1020.8	30.73	8810	1027.7	30.87
184	2.83	8702	1012.7	26.48	8775	1019.6	31.02	8800	1026.5	31.16
183	2.44	8693	1011.5	26.67	8766	1018.4	31.31	8790	1025.3	31.45
182	2.05	8684	1010.3	26.86	8757	1017.2	31.60	8780	1024.1	31.74
181	1.66	8675	1009.1	27.05	8748	1016.0	31.89	8770	1022.9	32.03
180	1.27	8666	1007.9	27.24	8739	1014.8	32.18	8760	1021.7	32.32
179	0.88	8657	1006.7	27.43	8730	1013.6	32.47	8750	1020.5	32.61
178	0.49	8648	1005.5	27.62	8721	1012.4	32.76	8740	1019.3	32.90
177	0.10	8639	1004.3	27.81	8712	1011.2	33.05	8730	1018.1	33.19
176	0.00	8630	1003.1	28.00	8703	1010.0	33.34	8720	1016.9	33.48
175	0.00	8621	1001.9	28.19	8694	1008.8	33.63	8710	1015.7	33.77
174	0.00	8612	1000.7	28.38	8685	1007.6	33.92	8700	1014.5	34.06
173	0.00	8603	999.5	28.57	8676	1006.4	34.21	8690	1013.3	34.35
172	0.00	8594	998.3	28.76	8667	1005.2	34.50	8680	1012.1	34.64
171	0.00	8585	997.1	28.95	8658	1004.0	34.79	8670	1010.9	34.93
170	0.00	8576	995.9	29.14	8649	1002.8	35.08	8660	1009.7	35.22
169	0.00	8567	994.7							

Temperature, Degrees Fch.	Pressure, Poun per Square Inch.	1.63			1.66		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	9866	1153.7	8.944	9945	1161.1	9.016
275	45.52	9855	1152.5	9.070	9934	1159.8	9.144
274	44.78	9845	1151.2	9.200	9924	1158.5	9.274
					4	1168	9.22
					2	1167	9.33
					1	1166	9.45
273	44.06	9835	1150.0	9.333	9994	1164.6	9.483
272	43.35	9825	1148.8	9.469	9984	1163.4	9.621
271	42.64	9816	1147.5	9.605	9974	1162.1	9.759
							12
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270	41.95	9805	1146.2	9.743	9962	1160.8	9.900
269	41.26	9795	1145.0	9.883	9952	1159.6	10.04
268	40.58	9785	1143.8	10.03	9942	1158.3	10.19
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267	39.91	9775	1142.5	10.18	9932	1157.0	10.34
266	39.26	9764	1141.2	10.32	9921	1155.7	10.49
265	38.60	9754	1140.0	10.48	9910	1154.5	10.64
							2
264	37.96	9744	1138.7	10.63	9900	1153.2	10.80
263	37.33	9735	1137.5	10.79	9890	1152.0	10.96
262	36.71	9725	1136.3	10.95	9880	1150.7	11.12
							9978
							11
							11
261	36.09	9716	1135.1	11.11	9870	1149.5	11.29
260	35.48	9706	1133.8	11.28	9860	1148.2	11.46
259	34.88	9695	1132.5	11.45	9849	1146.9	11.63
							9948
							11
							11
258	34.29	9685	1131.2	11.62	9838	1145.5	11.81
257	33.71	9676	1130.0	11.80	9829	1144.3	11.98
256	33.14	9665	1128.7	11.98	9819	1143.0	12.17
							9915
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255	32.57	9654	1127.4	12.16	9807	1141.7	12.36
254	32.01	9644	1126.1	12.35	9797	1140.4	12.55
253	31.46	9634	1124.9	12.54	9786	1139.2	12.74
							9883
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252	30.92	9625	1123.6	12.74	9777	1137.9	12.94
251	30.38	9615	1122.4	12.94	9766	1136.6	13.15
250	29.86	9605	1121.1	13.14	9756	1135.3	13.35
							9853
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249	29.34	9594	1119.8	13.35	9745	1134.0	13.56
248	28.82	9584	1118.5	13.55	9735	1132.6	13.76
247	28.32	9575	1117.3	13.76	9725	1131.4	13.97
							9820
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246	27.82	9565	1116.0	13.97	9714	1130.1	14.19
245	27.33	9554	1114.8	14.18	9704	1128.8	14.40
244	26.85	9545	1113.5	14.42	9694	1127.5	14.65
							9789
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243	26.37	9535	1112.2	14.65	9684	1126.3	14.88
242	25.90	9525	1110.9	14.89	9674	1125.0	15.12
241	25.44	9515	1109.6	15.13	9663	1123.7	15.36
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240	24.98	9506	1108.3	15.37	9653	1122.3	15.61
239	24.53	9495	1107.0	15.62	9643	1121.0	15.86
238	24.09	9486	1105.7	15.88	9633	1119.7	16.13
							9727
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237	23.66	9475	1104.5	16.14	9622	1118.4	16.39
236	23.23	9466	1103.2	16.40	9612	1117.1	16.66
235	22.80	9455	1101.9	16.67	9602	1115.8	16.93
							9696
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234	22.39	9445	1100.5	16.94	9591	1114.4	17.21
233	21.98	9435	1099.2	17.23	9581	1113.1	17.49
232	21.57	9425	1097.9	17.51	9570	1111.8	17.78
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231	21.18	9415	1096.7	17.80	9560	1110.5	18.08
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	Temperature Degrees F.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.
228	20.02	9097	1065.2	18.13	9169	1072.1	18.27	9241	1079.0	18.42	9313	10
227	19.64	9087	1064.0	18.44	9159	1070.9	18.58	9231	1077.7	18.73	9303	10
226	19.28	9078	1062.7	18.76	9150	1069.6	18.91	9221	1076.4	19.06	9293	10
225	18.91	9068	1061.5	19.08	9140	1068.3	19.23	9211	1075.1	19.38	9283	10
224	18.56	9059	1060.2	19.40	9130	1067.0	19.56	9202	1073.8	19.71	9273	10
223	18.21	9050	1059.0	19.74	9121	1065.8	19.89	9192	1072.6	20.05	9264	10
222	17.86	9041	1057.7	20.07	9112	1064.5	20.23	9183	1071.3	20.39	9254	10
221	17.52	9032	1056.5	20.42	9103	1063.3	20.58	9174	1070.1	20.74	9245	10
220	17.19	9023	1055.2	20.78	9094	1062.0	20.94	9165	1068.8	21.11	9235	10
219	16.86	9013	1053.9	21.15	9084	1060.7	21.31	9154	1067.4	21.48	9225	10
218	16.53	9003	1052.6	21.52	9073	1059.3	21.69	9144	1066.0	21.85	9214	10
217	16.21	8994	1051.3	21.89	9064	1058.0	22.06	9134	1064.8	22.23	9205	10
216	15.90	8984	1050.0	22.27	9055	1056.7	22.45	9125	1063.5	22.62	9195	10
215	15.59	8975	1048.7	22.66	9045	1055.4	22.84	9115	1062.2	23.02	9185	10
214	15.29	8966	1047.4	23.07	9036	1054.1	23.25	9105	1060.9	23.43	9175	10
213	14.99	8956	1046.2	23.47	9026	1052.9	23.66	9096	1059.6	23.84	9165	10
212	14.70	8947	1044.9	23.85	9017	1051.6	24.04	9086	1058.3	24.22	9156	10
211	14.41	8938	1043.6	24.23	9007	1050.3	24.42	9076	1057.0	24.61	9146	10
210	14.12	8928	1042.3	24.67	8997	1049.0	24.86	9067	1055.7	25.05	9136	10
209	13.84	8919	1041.0	25.11	8988	1047.7	25.31	9057	1054.3	25.50	9126	10
208	13.57	8909	1039.7	25.57	8978	1046.4	25.77	9047	1053.0	25.96	9116	10
207	13.29	8900	1038.4	26.04	8968	1045.0	26.24	9037	1051.7	26.44	9106	10
206	13.03	8890	1037.1	26.52	8959	1043.7	26.72	9027	1050.4	26.93	9096	10
205	12.77	8881	1035.8	27.00	8949	1042.4	27.21	9018	1049.1	27.41	9086	10
204	12.51	8871	1034.5	27.49	8939	1041.1	27.70	9008	1047.8	27.92	9076	10
203	12.25	8862	1033.2	27.99	8930	1039.8	28.21	8998	1046.4	28.42	9066	10
202	12.01	8853	1031.9	28.51	8921	1038.6	28.72	8989	1045.2	28.94	9057	10
201	11.76	8844	1030.6	29.04	8912	1037.2	29.27	8980	1043.8	29.49	9048	10
200	11.52	8835	1029.3	29.58	8902	1035.9	29.80	8970	1042.5	30.03	9038	10
199	11.28	8825	1028.0	30.13	8893	1034.6	30.36	8960	1041.2	30.59	9028	10
198	11.05	8816	1026.7	30.69	8883	1033.3	30.92	8951	1039.9	31.16	9018	10
197	10.82	8806	1025.3	31.26	8873	1031.9	31.50	8940	1038.4	31.74	9007	10
196	10.60	8796	1024.0	31.85	8863	1030.5	32.09	8930	1037.1	32.34	8997	10
195	10.38	8787	1022.7	32.46	8854	1029.3	32.71	8921	1035.8	32.95	8988	10
194	10.16	8777	1021.4	33.07	8844	1027.9	33.32	8911	1034.5	33.58	8977	10
193	9.95	8768	1020.1	33.70	8835	1026.6	33.96	8901	1033.2	34.22	8968	10
192	9.74	8758	1018.8	34.35	8825	1025.3	34.61	8891	1031.8	34.87	8958	10
191	9.53	8749	1017.4	35.00	8815	1023.9	35.27	8881	1030.4	35.53	8948	10
190	9.33	8740	1016.2	35.68	8806	1022.6	35.95	8872	1029.1	36.22	8938	10
189	9.13	8730	1014.9	36.37	8796	1021.4	36.65	8863	1027.8	36.92	8929	10
188	8.94	8721	1013.5	37.07	8787	1020.0	37.35	8852	1026.5	37.63	8918	10
187	8.75	8712	1012.2	37.79	8777	1018.7	38.08	8843	1025.2	38.36	8909	10
186	8.56	8702	1010.9	38.53	8767	1017.3	38.82	8833	1023.8	39.11	8898	10
185	8.37	8693	1009.6	39.29	8758	1016.0	39.59	8823	1022.5	39.88	8889	10
184	8.19	8683	1008.2	40.07	8748	1014.6	40.37	8813	1021.1	40.67	8878	10
183	8.01	8673	1006.9	40.86	8739	1013.3	41.17	8804	1019.8	41.47	8869	10
182	7.84	8664	1005.6	41.67	8729	1012.0	41.98	8794	1018.4	42.29	8859	10

1.04			1.05			1.06			1.07		
Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
9385	1092.7	18.70	9457	1099.6	18.85	9529	1106.5	18.99	9601	1113.3	19.13
9375	1091.4	19.02	9446	1098.3	19.17	9518	1105.2	19.31	9590	1112.0	19.46
9365	1090.1	19.36	9436	1097.0	19.51	9508	1103.9	19.65	9580	1110.7	19.80
9354	1088.8	19.68	9426	1095.7	19.83	9497	1102.6	19.98	9569	1109.4	20.13
9345	1087.5	20.02	9416	1094.3	20.17	9487	1101.2	20.26	9559	1108.0	20.47
9335	1086.2	20.36	9406	1093.1	20.51	9477	1099.9	20.67	9548	1106.7	20.82
9325	1084.9	20.70	9396	1091.8	20.86	9467	1098.6	21.02	9538	1105.4	21.17
9316	1083.6	21.06	9387	1090.5	21.22	9458	1097.3	21.38	9529	1104.1	21.54
9306	1082.3	21.43	9377	1089.1	21.60	9448	1095.9	21.76	9518	1102.7	21.92
9296	1081.0	21.81	9366	1087.8	21.97	9437	1094.5	22.14	9507	1101.3	22.30
9285	1079.6	22.19	9355	1086.4	22.36	9426	1093.1	22.53	9496	1099.9	22.70
9275	1078.3	22.57	9345	1085.1	22.75	9415	1091.8	22.92	9486	1098.6	23.09
9265	1077.0	22.97	9335	1083.7	23.14	9405	1090.5	23.32	9475	1097.2	23.49
9255	1075.7	23.37	9325	1082.4	23.55	9395	1089.2	23.72	9465	1095.9	23.90
9245	1074.4	23.79	9315	1081.1	23.97	9385	1087.8	24.15	9454	1094.6	24.33
9235	1073.1	24.20	9305	1079.8	24.39	9374	1086.5	24.57	9444	1093.3	24.75
9225	1071.7	24.59	9295	1078.4	24.78	9364	1085.1	24.96	9434	1091.9	25.15
9215	1070.4	24.98	9284	1077.1	25.17	9354	1083.8	25.36	9423	1090.6	25.55
9205	1069.1	25.43	9274	1075.8	25.62	9343	1082.5	25.82	9413	1089.2	26.01
9195	1067.7	25.89	9264	1074.4	26.09	9333	1081.1	26.28	9402	1087.8	26.48
9185	1066.4	26.36	9254	1073.1	26.56	9322	1079.7	26.76	9391	1086.4	26.95
9175	1065.0	26.84	9243	1071.7	27.05	9312	1078.4	27.25	9381	1085.0	27.45
9165	1063.7	27.34	9233	1070.4	27.54	9302	1077.0	27.75	9370	1083.7	27.95
9154	1062.4	27.83	9223	1069.0	28.04	9291	1075.7	28.25	9360	1082.3	28.45
9144	1061.0	28.34	9213	1067.7	28.55	9281	1074.3	28.76	9349	1080.9	28.97
9134	1059.7	28.85	9202	1066.3	29.07	9270	1072.9	29.29	9338	1079.6	29.50
9125	1058.4	29.38	9193	1065.0	29.60	9261	1071.6	29.82	9329	1078.2	30.04
9115	1057.0	29.94	9183	1063.6	30.16	9251	1070.3	30.38	9319	1076.9	30.60
9105	1055.7	30.48	9173	1062.3	30.71	9241	1068.9	30.94	9308	1075.5	31.16
9095	1054.3	31.05	9163	1060.9	31.28	9230	1067.5	31.51	9298	1074.1	31.74
9086	1053.0	31.63	9153	1059.6	31.86	9220	1066.2	32.10	9288	1072.8	32.33
9074	1051.6	32.21	9142	1058.1	32.45	9209	1064.7	32.69	9276	1071.3	32.93
9064	1050.2	32.82	9131	1056.8	33.06	9198	1063.3	33.31	9265	1069.9	33.55
9054	1048.9	33.45	9121	1055.4	33.69	9188	1062.0	33.94	9255	1068.5	34.19
9044	1047.5	34.08	9111	1054.1	34.33	9178	1060.6	34.58	9244	1067.1	34.83
9035	1046.2	34.73	9101	1052.7	34.98	9168	1059.3	35.24	9234	1065.8	35.50
9024	1044.8	35.39	9091	1051.4	35.65	9157	1057.9	35.91	9224	1064.4	36.18
9014	1043.5	36.06	9080	1050.0	36.33	9147	1056.5	36.60	9213	1063.0	36.86
9004	1042.1	36.76	9070	1048.6	37.03	9137	1055.1	37.30	9203	1061.6	37.57
8995	1040.8	37.47	9061	1047.3	37.75	9127	1053.8	38.02	9193	1060.3	38.30
8984	1039.4	38.19	9050	1045.9	38.47	9116	1052.4	38.75	9182	1058.8	39.03
8974	1038.1	38.93	9040	1044.6	39.22	9106	1051.0	39.50	9172	1057.5	39.79
8964	1036.7	39.69	9030	1043.1	39.98	9095	1049.6	40.27	9161	1056.1	40.56
8954	1035.4	40.47	9020	1041.8	40.77	9085	1048.2	41.06	9150	1054.7	41.36
8944	1034.0	41.28	9009	1040.4	41.58	9074	1046.8	41.88	9140	1053.2	42.18
8934	1032.6	42.09	8999	1039.0	42.39	9064	1045.5	42.70	9129	1051.9	43.01
8924	1031.3	42.91	8989	1037.7	43.23	9054	1044.1	43.54	9119	1050.5	43.85

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	Fig. 2			Fig. 3			Fig. 4			Fig. 5			Fig. 6		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	8645	1002.8	43.35	8710	1009.2	43.67	8774	1015.6	43.99	8839	1022.0	44.32			
179	7.34	8636	1001.5	44.21	8700	1007.9	44.54	8765	1014.3	44.87	8829	1020.7	45.20			
178	7.17	8626	1000.2	45.09	8691	1006.6	45.43	8755	1012.9	45.76	8820	1019.3	46.10			
177	7.01	8617	998.9	46.01	8681	1005.2	46.35	8746	1011.6	46.69	8810	1018.0	47.04			
176	6.86	8607	997.5	46.94	8671	1003.8	47.29	8735	1010.2	47.64	8799	1016.5	47.99			
175	6.70	8598	996.1	47.89	8662	1002.5	48.25	8726	1008.8	48.60	8790	1015.2	48.96			
174	6.55	8588	994.8	48.87	8652	1001.2	49.23	8716	1007.5	49.59	8780	1013.8	49.96			
173	6.41	8579	993.5	49.87	8643	999.8	50.24	8706	1006.1	50.61	8770	1012.5	50.98			
172	6.26	8569	992.1	50.89	8633	998.5	51.27	8696	1004.8	51.65	8760	1011.1	52.03			
171	6.12	8559	990.7	51.93	8623	997.0	52.31	8686	1003.4	52.70	8749	1009.7	53.08			
170	5.98	8550	989.4	53.01	8613	995.7	53.40	8676	1002.0	53.79	8740	1008.3	54.19			
169	5.84	8540	988.1	54.12	8603	994.3	54.52	8667	1000.6	54.92	8730	1006.9	55.32			
168	5.71	8531	986.7	55.25	8594	993.0	55.66	8657	999.3	56.07	8720	1005.5	56.48			
167	5.58	8521	985.3	56.42	8584	991.6	56.84	8647	997.9	57.25	8710	1004.1	57.67			
166	5.45	8512	984.0	57.60	8574	990.2	58.02	8637	996.5	58.45	8700	1002.8	58.87			
165	5.32	8502	982.6	58.81	8565	988.9	59.24	8627	995.1	59.67	8690	1001.4	60.11			
164	5.20	8493	981.3	60.06	8555	987.5	60.50	8617	993.7	60.94	8680	1000.0	61.38			
163	5.08	8483	979.9	61.33	8545	986.1	61.78	8607	992.4	62.23	8670	998.6	62.68			
162	4.960	8473	978.5	62.64	8536	984.7	63.10	8598	991.0	63.56	8660	997.2	64.02			
161	4.844	8465	977.2	64.00	8527	983.4	64.47	8589	989.6	64.93	8651	995.8	65.40			
160	4.729	8456	975.8	65.37	8517	982.0	65.85	8579	988.2	66.33	8641	994.4	66.80			
159	4.617	8446	974.5	66.78	8508	980.7	67.27	8569	986.8	67.76	8631	993.0	68.24			
158	4.508	8436	973.1	68.23	8498	979.3	68.73	8559	985.4	69.23	8621	991.6	69.72			
157	4.400	8427	971.8	69.73	8489	977.9	70.23	8550	984.1	70.74	8611	990.3	71.25			
156	4.295	8417	970.4	71.26	8479	976.5	71.78	8540	982.7	72.30	8601	988.8	72.82			
155	4.191	8408	969.0	72.82	8469	975.1	73.35	8530	981.3	73.88	8591	987.4	74.41			
154	4.090	8398	967.6	74.42	8459	973.7	74.96	8520	979.9	75.50	8581	986.0	76.04			
153	3.991	8389	966.2	76.07	8450	972.4	76.62	8510	978.5	77.17	8571	984.6	77.72			
152	3.894	8379	964.8	77.76	8440	971.0	78.33	8500	977.1	78.89	8561	983.2	79.45			
151	3.799	8369	963.4	79.50	8430	969.5	80.07	8490	975.7	80.65	8551	981.8	81.22			
150	3.706	8360	962.1	81.29	8420	968.2	81.88	8480	974.3	82.47	8541	980.4	83.05			
149	3.615	8350	960.7	83.12	8410	966.8	83.72	8470	972.9	84.31	8531	978.9	84.91			
148	3.526	8341	959.3	84.99	8401	965.4	85.60	8461	971.5	86.22	8521	977.6	86.83			
147	3.439	8331	957.9	86.89	8391	964.0	87.52	8451	970.0	88.14	8511	976.1	88.77			
146	3.353	8322	956.6	88.87	8381	962.6	89.51	8441	968.7	90.15	8501	974.7	90.79			
145	3.270	8312	955.1	90.93	8371	961.2	91.59	8431	967.2	92.24	8491	973.3	92.89			
144	3.188	8302	953.8	92.99	8362	959.8	93.65	8421	965.8	94.32	8481	971.9	94.99			
143	3.108	8292	952.3	95.11	8352	958.4	95.79	8411	964.4	96.47	8470	970.4	97.16			
142	3.029	8283	951.0	97.32	8342	957.0	98.02	8401	963.0	98.72	8461	969.0	99.41			
141	2.953	8274	949.6	99.62	8333	955.6	100.3	8392	961.6	101.0	8452	967.6	101.8			
140	2.877	8264	948.1	102.0	8323	954.1	102.7	8382	960.1	103.4	8441	966.1	104.2			
139	2.804	8255	946.8	104.4	8314	952.7	105.2	8372	958.7	105.9	8431	964.7	106.7			
138	2.732	8245	945.4	106.9	8304	951.3	107.6	8363	957.3	108.4	8421	963.3	109.1			
137	2.662	8235	943.9	109.4	8294	949.9	110.1	8352	955.8	110.9	8411	961.8	111.7			
136	2.593	8226	942.5	112.0	8284	948.5	112.7	8342	954.4	113.5	8401	960.4	114.3			
135	2.526	8216	941.1	114.6	8274	947.1	115.4	8333	953.0	116.2	8391	959.0	117.1			
134	2.460	8206	939.7	117.4	8264	945.6	118.3	8322	951.5	119.1	8380	957.5	119.9			

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	1.00			1.05			1.10			1.15			1.20		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	8904	1028.4	44.64	8968	1034.8	44.97	9033	1041.2	45.29	9098	1047.6	45.61	9163	1054.0	45.93
179	7.34	8894	1027.0	45.53	8958	1033.4	45.86	9023	1039.8	46.19	9087	1046.2	46.51	9152	1052.6	46.83
178	7.17	8884	1025.7	46.44	8948	1032.1	46.77	9013	1038.4	47.11	9077	1044.8	47.43	9141	1051.2	47.75
177	7.01	8874	1024.3	47.38	8938	1030.7	47.72	9002	1037.1	48.06	9067	1043.4	48.38	9130	1049.8	49.09
176	6.86	8863	1022.9	48.34	8928	1029.3	48.69	8992	1035.6	49.04	9056	1042.0	49.36	9119	1048.4	50.00
175	6.70	8853	1021.5	49.31	8917	1027.9	49.67	8981	1034.2	50.03	9045	1040.6	50.35	9108	1047.0	51.00
174	6.55	8843	1020.2	50.32	8907	1026.5	50.68	8971	1032.8	51.05	9035	1039.2	51.40	9097	1045.6	52.00
173	6.41	8833	1018.8	51.35	8897	1025.1	51.72	8961	1031.4	52.09	9024	1037.8	52.40	9086	1044.2	53.00
172	6.26	8823	1017.4	52.40	8887	1023.7	52.78	8950	1030.0	53.16	9014	1036.4	53.40	9075	1042.8	54.00
171	6.12	8813	1016.0	53.47	8876	1022.3	53.85	8940	1028.6	54.24	9003	1034.9	54.40	9064	1041.4	55.00
170	5.98	8803	1014.6	54.58	8866	1020.9	54.97	8929	1027.2	55.36	8992	1033.5	55.60	9053	1040.0	56.00
169	5.84	8793	1013.2	55.72	8856	1019.5	56.12	8919	1025.8	56.52	8982	1032.0	56.80	9042	1038.6	57.00
168	5.71	8783	1011.8	56.88	8846	1018.1	57.29	8908	1024.4	57.70	8971	1030.6	58.00	9031	1037.2	59.00
167	5.58	8773	1010.4	58.08	8836	1016.7	58.50	8898	1022.9	58.91	8961	1029.2	59.20	9020	1035.8	60.00
166	5.45	8762	1009.0	59.30	8825	1015.3	59.72	8888	1021.5	60.14	8950	1027.8	60.40	9009	1034.4	61.00
165	5.32	8752	1007.6	60.54	8815	1013.9	60.97	8877	1020.1	61.40	8940	1026.3	61.60	9000	1033.0	62.00
164	5.20	8742	1006.2	61.82	8804	1012.4	62.22	8867	1018.7	62.71	8929	1024.9	63.00	8990	1031.6	64.00
163	5.08	8732	1004.8	63.13	8794	1011.0	63.58	8856	1017.3	64.03	8919	1023.5	64.40	8980	1030.2	65.00
162	4.960	8722	1003.4	64.48	8784	1009.6	64.94	8846	1015.8	65.40	8908	1022.0	65.60	8970	1028.8	66.00
161	4.844	8713	1002.0	65.87	8775	1008.2	66.34	8837	1014.5	66.81	8899	1020.7	67.00	8960	1027.4	68.00
160	4.729	8703	1000.6	67.28	8765	1006.8	67.76	8826	1013.0	68.24	8888	1019.2	68.40	8949	1026.0	69.00
159	4.617	8693	999.2	68.73	8754	1005.4	69.22	8816	1011.6	69.71	8877	1017.8	70.00	8938	1024.6	71.00
158	4.508	8682	997.8	70.22	8744	1004.0	70.72	8805	1010.1	71.22	8867	1016.3	71.40	8927	1023.2	72.00
157	4.400	8673	996.4	71.76	8734	1002.6	72.26	8795	1008.8	72.77	8857	1014.9	73.00	8916	1021.8	74.00
156	4.295	8662	995.0	73.33	8724	1001.1	73.85	8785	1007.3	74.37	8846	1013.5	74.60	8905	1020.4	75.00
155	4.191	8652	993.6	74.93	8713	999.7	75.46	8774	1005.9	75.99	8835	1012.0	76.00	8894	1019.0	77.00
154	4.090	8642	992.1	76.58	8703	998.3	77.12	8764	1004.4	77.66	8824	1010.5	78.00	8883	1017.6	79.00
153	3.991	8632	990.7	78.27	8693	996.9	78.83	8753	1003.0	79.38	8814	1009.1	79.60	8873	1016.2	80.00
152	3.894	8622	989.3	80.02	8682	995.4	80.58	8743	1001.5	81.14	8803	1007.7	81.40	8862	1014.8	82.00
151	3.799	8611	987.9	81.80	8672	994.0	82.37	8732	1000.1	82.95	8793	1006.2	83.00	8851	1013.4	84.00
150	3.706	8601	986.5	83.64	8662	992.6	84.23	8722	998.7	84.81	8782	1004.8	85.00	8840	1012.0	86.00
149	3.615	8591	985.0	85.51	8651	991.1	86.11	8711	997.2	86.71	8772	1003.3	86.40	8830	1010.6	87.00
148	3.526	8581	983.6	87.44	8641	989.7	88.05	8701	995.8	88.67	8761	1001.9	88.00	8820	1009.2	89.00
147	3.439	8571	982.2	89.39	8631	988.2	90.02	8690	994.3	90.64	8750	1000.4	91.00	8810	1007.8	92.00
146	3.353	8561	980.8	91.43	8621	986.8	92.07	8680	992.9	92.71	8740	998.9	93.00	8800	1006.4	94.00
145	3.270	8550	979.3	93.54	8610	985.4	94.20	8670	991.4	94.85	8729	997.4	95.00	8790	1005.0	96.00
144	3.188	8540	977.9	95.65	8600	983.9	96.32	8659	990.0	96.99	8719	996.0	97.00	8780	1003.6	98.00
143	3.108	8530	976.4	97.84	8589	982.5	98.52	8649	988.5	99.20	8709	994.5	99.00	8770	1002.2	100.00
142	3.029	8520	975.0	100.1	8579	981.0	100.8	8638	987.0	101.5	8698	993.1	102.00	8760	1000.8	103.00
141	2.953	8511	973.6	102.5	8570	979.6	103.2	8629	985.6	103.9	8688	991.6	104.00	8750	999.4	106.00
140	2.877	8500	972.1	104.9	8559	978.1	105.6	8618	984.1	106.3	8677	990.1	107.00	8740	998.0	109.00
139	2.804	8490	970.7	107.4	8549	976.7	108.1	8608	982.7	108.9	8667	988.6	109.00	8730	996.6	112.00
138	2.732	8480	969.3	109.9	8539	975.2	110.7	8597	981.2	111.4	8656	987.2	112.00	8720	995.2	115.00
137	2.662	8469	967.8	112.5	8528	973.7	113.3	8587	979.7	114.0	8645	985.7	114.00	8710	993.8	118.00
136	2.593	8459	966.3	115.1	8518	972.3	115.9	8576	978.3	116.7	8635	984.2	115.00	8700	992.4	121.00
135	2.526	8449	964.9	117.9	8508	970.9	118.7	8566	976.8	119.5	8624	982.7	120.00	8690	991.0	124.00
134	2.460	8439	963.4	120.7	8497	969.3	121.6	8555	975.3	122.4	8613	981.2	123.00	8680	989.6	127.00

Temperature, Degrees Fahr.	Pressure Pounds per Square Inch.	Quality.	Heat Con- tent.	Specific Volume.	Quality.	Heat Con- tent.	Specific Volume.	Quality.	Heat Con- tent.	Specific Volume.	Quality.
132	2.333	8187	936.9	123.1	8245	942.8	124.0	8303	948.7	124.9	8361
131	2.272	8177	935.4	126.1	8235	941.3	127.0	8293	947.3	127.9	8351
130	2.212	8168	934.0	129.1	8225	939.9	130.0	8283	945.8	130.9	8341
129	2.153	8158	932.6	132.4	8215	938.5	133.3	8273	944.4	134.3	8331
128	2.096	8148	931.2	135.6	8206	937.1	136.5	8263	942.9	137.5	8321
127	2.040	8139	929.8	138.9	8196	935.7	139.9	8253	941.5	140.9	8311
126	1.985	8129	928.3	142.4	8186	934.2	143.4	8243	940.0	144.4	8301
125	1.932	8119	926.9	146.0	8176	932.8	147.0	8233	938.6	148.0	8291
124	1.880	8109	925.5	149.6	8166	931.3	150.7	8223	937.1	151.7	8281
123	1.829	8100	924.1	153.3	8156	929.9	154.4	8213	935.7	155.5	8271
122	1.779	8090	922.6	157.2	8146	928.4	158.3	8203	934.2	159.4	8261
121	1.730	8081	921.2	161.2	8138	927.0	162.3	8194	932.8	163.5	8251
120	1.683	8071	919.8	165.3	8128	925.6	166.5	8184	931.3	167.6	8241
119	1.636	8062	918.4	169.5	8118	924.2	170.7	8174	929.9	171.9	8231
118	1.591	8052	916.9	173.9	8108	922.7	175.1	8164	928.5	176.3	8221
117	1.547	8042	915.5	178.4	8098	921.2	179.6	8154	927.0	180.9	8211
116	1.504	8032	914.0	183.0	8088	919.7	184.2	8144	925.5	185.5	8201
115	1.462	8023	912.6	187.7	8079	918.3	189.0	8134	924.1	190.3	8191
114	1.421	8013	911.1	192.6	8068	916.8	194.0	8124	922.6	195.3	8181
113	1.381	8003	909.7	197.7	8058	915.4	199.0	8114	921.1	200.4	8171
112	1.342	7994	908.2	202.9	8049	913.9	204.3	8104	919.6	205.7	8161
111	1.304	7984	906.8	208.3	8039	912.5	209.7	8094	918.2	211.2	8151
110	1.266	7974	905.3	213.8	8029	911.0	215.3	8084	916.7	216.7	8141
109	1.230	7964	903.9	219.5	8019	909.6	221.0	8074	915.2	222.5	8131
108	1.195	7955	902.4	225.4	8009	908.1	226.9	8064	913.7	228.4	8121
107	1.160	7944	901.0	231.3	7999	906.6	232.9	8053	912.3	234.5	8111
106	1.127	7935	899.5	237.6	7989	905.1	239.2	8044	910.8	240.8	8101
105	1.094	7925	898.0	244.1	7979	903.6	245.8	8034	909.3	247.4	8091
104	1.062	7915	896.5	250.7	7969	902.1	252.5	8023	907.8	254.2	8081
103	1.031	7905	895.1	257.6	7959	900.7	259.4	8013	906.3	261.1	8071
102	1.000	7896	893.6	264.7	7950	899.2	266.5	8003	904.8	268.3	8061
101	0.971	7887	892.1	271.9	7941	897.7	273.8	7994	903.3	275.6	8051
100	0.942	7877	890.6	279.4	7930	896.2	281.3	7984	901.8	283.2	8041
99	0.914	7867	889.2	287.3	7920	894.8	289.3	7974	900.3	291.2	8031
98	0.887	7857	887.7	295.3	7910	893.3	297.4	7964	898.8	299.4	8021
97	0.860	7847	886.3	303.6	7901	891.9	305.7	7954	897.4	307.7	8011
96	0.834	7838	884.9	312.3	7891	890.4	314.4	7944	896.0	316.5	7999
95	0.809	7829	883.4	321.1	7881	888.9	323.3	7934	894.5	325.5	7990
94	0.784	7819	881.9	330.3	7871	887.4	332.5	7924	893.0	334.7	7981
93	0.761	7809	880.4	339.7	7861	885.9	342.0	7914	891.5	344.3	7971
92	0.737	7799	878.9	349.5	7851	884.4	351.8	7904	889.9	354.2	7961
91	0.715	7789	877.4	359.6	7841	882.9	362.0	7894	888.4	364.5	7951
90	0.693	7779	875.9	370.0	7831	881.4	372.5	7884	886.9	374.9	7941
89	0.671	7769	874.4	380.7	7821	879.9	383.2	7873	885.4	385.8	7931
88	0.650	7759	872.9	391.7	7811	878.4	394.3	7863	883.9	396.9	7921

TEMPERATURE-ENTROPY TABLE.

103

Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.64			1.65			1.66			1.67		
		Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
2	2.333	8418	960.5	126.6	8476	966.4	127.5	8534	972.3	128.4	8592	978.3	129.2
1	2.272	8408	959.1	129.7	8466	965.0	130.5	8524	970.9	131.4	8581	976.8	132.3
0	2.212	8398	957.6	132.8	8455	963.5	133.7	8513	969.4	134.6	8571	975.3	135.5
9	2.153	8388	956.2	136.1	8445	962.0	137.0	8503	967.9	138.0	8560	973.8	138.9
8	2.096	8377	954.7	139.4	8435	960.6	140.4	8492	966.4	141.3	8549	972.3	142.3
7	2.040	8367	953.3	142.8	8424	959.1	143.8	8482	965.0	144.8	8539	970.8	145.8
6	1.985	8357	951.8	146.4	8414	957.6	147.4	8471	963.5	148.4	8528	969.3	149.4
5	1.932	8347	950.4	150.1	8404	956.2	151.1	8460	962.1	152.1	8517	967.7	153.1
4	1.880	8336	948.8	153.8	8393	954.6	154.9	8450	960.5	155.9	8507	966.3	156.9
3	1.829	8326	947.4	157.6	8388	953.2	158.7	8439	959.1	159.8	8496	964.9	160.8
2	1.779	8316	945.9	161.6	8372	951.7	162.7	8429	957.5	163.8	8485	963.3	164.9
1	1.730	8307	944.4	165.7	8363	950.2	166.8	8419	956.0	168.0	8476	961.8	169.1
0	1.683	8296	942.9	169.9	8353	948.7	171.1	8409	954.5	172.2	8465	960.3	173.4
9	1.636	8286	941.5	174.3	8342	947.3	175.4	8398	953.0	176.6	8454	958.8	177.8
8	1.591	8276	940.0	178.8	8332	945.8	180.0	8388	951.5	181.2	8444	957.3	182.4
7	1.547	8266	938.5	183.3	8321	944.3	184.6	8377	950.0	185.8	8433	955.8	187.0
6	1.504	8255	937.0	188.0	8311	942.8	189.3	8366	948.5	190.6	8422	954.2	191.9
5	1.462	8245	935.5	192.9	8301	941.3	194.2	8356	947.0	195.5	8412	952.8	196.8
4	1.421	8235	934.0	198.0	8290	939.8	199.3	8346	945.5	200.6	8401	951.3	202.0
3	1.381	8224	932.6	203.1	8280	938.3	204.5	8335	944.0	205.9	8390	949.8	207.2
2	1.342	8214	931.1	208.5	8269	936.8	209.9	8325	942.5	211.3	8380	948.2	212.7
1	1.304	8204	929.6	214.0	8259	935.3	215.5	8314	941.0	216.9	8369	946.7	218.3
0	1.266	8194	928.1	219.7	8249	933.8	221.1	8303	939.5	222.6	8358	945.2	224.1
9	1.230	8183	926.6	225.5	8238	932.3	227.0	8293	938.0	228.5	8347	943.7	230.1
8	1.195	8173	925.1	231.5	8228	930.8	233.1	8282	936.4	234.6	8337	942.1	236.2
7	1.160	8162	923.6	237.7	8217	929.3	239.3	8271	934.9	240.9	8326	940.6	242.4
6	1.127	8152	922.1	244.1	8207	927.7	245.7	8261	933.4	247.3	8315	939.0	249.0
5	1.094	8142	920.6	250.8	8196	926.2	252.4	8251	931.9	254.1	8304	937.5	255.8
4	1.062	8131	919.1	257.6	8186	924.7	259.3	8240	930.3	261.0	8294	936.0	262.7
3	1.031	8121	917.6	264.7	8175	923.2	266.4	8229	928.8	268.2	8283	934.5	269.9
2	1.000	8111	916.1	271.9	8165	921.7	273.7	8219	927.3	275.5	8273	932.9	277.3
1	0.971	8102	914.5	279.3	8155	920.2	281.2	8209	925.8	283.0	8263	931.4	284.9
0	0.942	8091	913.0	287.0	8144	918.6	288.9	8198	924.2	290.8	8252	929.8	292.7
9	0.914	8081	911.5	295.1	8134	917.1	297.1	8188	922.7	299.0	8241	928.3	301.0
8	0.887	8070	910.0	303.4	8124	915.6	305.4	8177	921.2	307.4	8230	926.7	309.4
7	0.860	8060	908.5	311.8	8113	914.1	313.9	8166	919.7	316.0	8220	925.2	318.0
6	0.834	8051	907.1	320.7	8104	912.6	322.8	8157	918.2	325.0	8210	923.7	327.1
5	0.809	8040	905.5	329.8	8093	911.1	332.0	8146	916.7	334.2	8199	922.2	336.3
4	0.784	8030	904.0	339.2	8083	909.6	341.4	8135	915.1	343.6	8188	920.6	345.9
3	0.761	8019	902.5	348.8	8072	908.1	351.1	8125	913.6	353.4	8177	919.1	355.7
2	0.737	8009	901.0	358.9	8062	906.5	361.2	8114	912.0	363.6	8167	917.5	365.9

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.66			1.69			1.70			1.71		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
420	308.6	...	...	...	...	...	...	...	...	...	...	...	...
419	305.2	300	1375	2.290	...	...	...	...	...	...	...	...	...
418	301.9	298	1373	2.310	...	...	...	...	...	...	...	...	...
417	298.7	296	1371	2.330	...	...	...	...	...	...	...	...	...
416	295.4	294	1370	2.349	...	...	...	...	...	...	...	...	...
415	292.2	292	1369	2.368	...	...	...	...	...	...	...	...	...
414	289.0	291	1368	2.387	...	...	...	...	...	...	...	...	...
413	285.9	289	1367	2.406	...	...	...	...	...	...	...	...	...
412	282.7	287	1365	2.425	...	...	...	...	...	...	...	...	...
411	279.6	285	1364	2.445	...	...	...	...	...	...	...	...	...
410	276.5	283	1362	2.464	...	...	...	...	...	...	...	...	...
409	273.5	281	1361	2.484	...	...	...	...	...	...	...	...	...
408	270.5	279	1359	2.505	...	...	...	...	...	...	...	...	...
407	267.5	278	1358	2.526	300	1369	2.586	...	...	...	...	...	...
406	264.5	276	1357	2.547	298	1368	2.608	...	...	...	...	...	...
405	261.6	274	1356	2.568	296	1367	2.629	...	...	...	...	...	...
404	258.6	272	1354	2.589	294	1365	2.650	...	...	...	...	...	...
403	255.7	270	1353	2.610	292	1364	2.672	...	...	...	...	...	...
402	252.9	268	1351	2.631	290	1362	2.696	...	...	...	...	...	...
401	250.0	266	1350	2.653	288	1361	2.719	...	...	...	...	...	...
400	247.2	264	1349	2.676	286	1360	2.740	...	...	...	...	...	...
399	244.4	263	1348	2.698	284	1358	2.764	...	...	...	...	...	...
398	241.7	261	1347	2.723	282	1357	2.788	...	...	...	...	...	...
397	238.9	259	1345	2.746	280	1355	2.810	...	...	...	...	...	...
396	236.2	257	1344	2.770	278	1354	2.835	...	...	...	...	...	...
395	233.5	255	1342	2.793	276	1353	2.860	...	...	...	...	...	...
394	230.8	253	1341	2.818	274	1351	2.885	299	1364	2.960	...	...	...
393	228.2	251	1339	2.843	272	1350	2.910	297	1363	2.985	...	...	...
392	225.6	249	1338	2.869	270	1349	2.936	295	1361	3.010	...	...	...
391	223.0	247	1337	2.894	269	1348	2.961	293	1360	3.035	...	...	...
390	220.4	246	1336	2.920	267	1346	2.988	291	1358	3.060	...	...	...
389	217.8	244	1335	2.946	265	1345	3.015	289	1357	3.186	...	...	...
388	215.3	242	1333	2.972	263	1344	3.041	286	1355	3.112	...	...	...
387	212.8	240	1332	3.000	261	1342	3.069	284	1353	3.140	...	...	...
386	210.3	238	1330	3.027	259	1341	3.096	282	1352	3.167	...	...	...
385	207.9	236	1329	3.054	257	1339	3.125	280	1351	3.296	...	...	...
384	205.4	234	1327	3.082	255	1338	3.152	278	1349	3.223	...	...	...
383	203.0	232	1326	3.110	253	1336	3.180	276	1348	3.251	300	1360	3.330
382	200.6	230	1325	3.139	251	1335	3.209	274	1347	3.280	298	1358	3.360
381	198.3	229	1324	3.170	249	1333	3.239	272	1345	3.310	296	1357	3.390
380	195.9	227	1322	3.198	247	1332	3.266	270	1344	3.340	294	1355	3.420
379	193.6	225	1321	3.227	245	1331	3.296	268	1342	3.370	292	1354	3.450
378	191.3	223	1319	3.257	243	1329	3.325	266	1341	3.400	290	1353	3.481
377	189.0	221	1318	3.287	241	1328	3.355	264	1339	3.431	287	1351	3.514
376	186.7	219	1317	3.317	239	1327	3.385	262	1338	3.464	285	1349	3.544
375	184.5	217	1315	3.346	238	1326	3.418	260	1337	3.497	283	1348	3.577

TEMPERATURE-ENTROPY TABLE.

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.66			1.69			1.70			1.71		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
372	177.9	212	1311	3.438	232	1322	3.510	254	1333	3.594	276	1343	3.673
371	175.7	210	1310	3.469	230	1320	3.541	252	1331	3.628	274	1342	3.708
370	173.6	208	1309	3.500	228	1319	3.578	250	1330	3.660	272	1340	3.740
369	171.5	206	1307	3.534	226	1317	3.610	248	1328	3.694	270	1339	3.775
368	169.4	204	1306	3.567	224	1316	3.643	246	1327	3.728	268	1338	3.810
367	167.3	202	1305	3.600	222	1315	3.679	244	1326	3.763	266	1336	3.845
366	165.3	200	1303	3.634	220	1313	3.711	242	1324	3.798	263	1334	3.882
365	163.2	198	1302	3.669	218	1312	3.748	240	1323	3.831	261	1333	3.918
364	161.2	197	1301	3.702	216	1310	3.781	238	1321	3.868	259	1332	3.955
363	159.2	195	1300	3.738	214	1309	3.818	236	1320	3.905	257	1330	3.990
362	157.2	193	1298	3.773	212	1308	3.853	234	1319	3.940	255	1329	4.028
361	155.3	191	1297	3.809	210	1306	3.890	232	1317	3.979	253	1328	4.065
360	153.3	189	1295	3.845	208	1305	3.928	230	1316	4.015	251	1326	4.104
359	151.4	187	1294	3.880	206	1303	3.961	227	1314	4.054	248	1324	4.141
358	149.5	185	1292	3.918	204	1302	4.000	225	1312	4.092	246	1323	4.182
357	147.6	183	1291	3.954	203	1301	4.040	223	1311	4.131	244	1321	4.221
356	145.8	182	1290	3.991	201	1300	4.079	221	1310	4.171	242	1320	4.263
355	143.9	180	1289	4.029	199	1299	4.119	219	1308	4.210	240	1319	4.305
354	142.1	178	1288	4.069	197	1297	4.159	217	1307	4.251	238	1317	4.347
353	140.3	176	1286	4.109	195	1296	4.199	215	1306	4.293	235	1315	4.390
352	138.5	174	1285	4.149	193	1294	4.240	213	1304	4.337	233	1314	4.433
351	136.7	172	1283	4.189	191	1293	4.282	211	1303	4.379	231	1313	4.477
350	135.0	170	1282	4.230	189	1292	4.325	209	1302	4.420	229	1311	4.520
349	133.2	168	1280	4.272	187	1290	4.370	207	1300	4.466	227	1310	4.568
348	131.5	166	1279	4.315	185	1289	4.413	205	1299	4.512	224	1308	4.615
347	129.8	165	1278	4.360	183	1287	4.460	203	1297	4.560	222	1307	4.662
346	128.1	163	1277	4.405	181	1286	4.505	201	1296	4.608	220	1305	4.709
345	126.4	161	1275	4.451	179	1285	4.550	199	1295	4.655	218	1304	4.760
344	124.8	159	1274	4.495	177	1283	4.597	197	1293	4.704	216	1303	4.809
343	123.2	157	1273	4.542	175	1282	4.645	195	1292	4.752	214	1301	4.859
342	121.5	155	1271	4.590	173	1280	4.690	193	1290	4.800	212	1300	4.909
341	119.9	153	1270	4.638	171	1279	4.740	191	1289	4.850	210	1299	4.960
340	118.4	152	1269	4.685	170	1278	4.788	189	1288	4.900	208	1297	5.010
339	116.8	150	1268	4.733	168	1277	4.838	187	1286	4.950	205	1295	5.061
338	115.2	148	1266	4.783	166	1275	4.887	185	1285	5.000	203	1294	5.115
337	113.7	146	1265	4.832	164	1274	4.939	183	1284	5.055	201	1292	5.170
336	112.2	144	1263	4.880	162	1273	4.990	181	1282	5.105	199	1291	5.224
335	110.7	142	1262	4.930	160	1271	5.040	179	1281	5.160	197	1290	5.279
334	109.2	140	1261	4.980	158	1270	5.092	177	1280	5.212	195	1288	5.334
333	107.7	138	1259	5.032	156	1268	5.147	174	1278	5.272	193	1287	5.389
332	106.3	137	1258	5.086	154	1267	5.200	172	1276	5.322	191	1286	5.444
331	104.8	135	1257	5.140	152	1266	5.256	170	1275	5.380	189	1284	5.500
330	103.4	133	1256	5.195	150	1264	5.312	168	1274	5.435	186	1282	5.555
329	102.0	131	1254	5.250	148	1263	5.370	166	1272	5.493	184	1281	5.612
328	100.6	129	1253	5.309	146	1261	5.430	164	1271	5.550	182	1280	5.670
327	99.2	127	1252	5.365	144	1260	5.487	162	1269	5.610	180	1278	5.730
326	97.8	125	1250	5.420	142								

Pressure, per Squa Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
2 177.9	299	1354	3.765	...	...	...	...	...	...	...	...	...
1 175.7	297	1353	3.798	...	...	...	...	...	...	...	...	...
0 173.6	295	1351	3.833	...	...	...	...	...	...	...	...	...
9 171.5	292	1349	3.869	...	...	...	...	...	...	...	...	...
8 169.4	290	1348	3.904	...	...	...	...	...	...	...	...	...
7 167.3	288	1347	3.940	...	...	...	...	...	...	...	...	...
6 165.3	286	1345	3.976	...	...	...	...	...	...	...	...	...
5 163.2	284	1344	4.011	...	...	...	...	...	...	...	...	...
4 161.2	282	1343	4.049	...	...	...	...	...	...	...	...	...
3 159.2	280	1341	4.086	...	...	...	...	...	...	...	...	...
2 157.2	277	1339	4.123	...	...	...	...	...	...	...	...	...
1 155.3	275	1338	4.160	299	1349	4.260	...	...	...	...	...	...
0 153.3	273	1337	4.200	297	1348	4.302	...	...	...	...	...	...
9 151.4	271	1335	4.239	295	1346	4.343	...	...	...	...	...	...
8 149.5	269	1334	4.279	293	1345	4.385	...	...	...	...	...	...
7 147.6	267	1333	4.319	290	1343	4.428	...	...	...	...	...	...
6 145.8	264	1331	4.360	288	1342	4.470	...	...	...	...	...	...
5 143.9	262	1329	4.400	286	1340	4.513	...	...	...	...	...	...
4 142.1	260	1328	4.444	283	1338	4.557	...	...	...	...	...	...
3 140.3	258	1327	4.488	281	1337	4.602	...	...	...	...	...	...
2 138.5	256	1326	4.532	279	1336	4.647	...	...	...	...	...	...
1 136.7	254	1324	4.577	277	1335	4.695	...	...	...	...	...	...
0 135.0	252	1323	4.622	274	1333	4.743	299	1344	4.850	...	...	...
9 133.2	249	1321	4.669	272	1331	4.790	296	1342	4.900	...	...	...
8 131.5	247	1319	4.717	270	1330	4.839	294	1341	4.950	...	...	...
7 129.8	245	1318	4.766	267	1328	4.889	292	1339	5.000	...	...	...
6 128.1	243	1317	4.815	265	1327	4.935	290	1338	5.050	...	...	...
5 126.4	241	1315	4.868	263	1325	4.985	287	1336	5.105	...	...	...
4 124.8	239	1314	4.919	261	1324	5.037	285	1335	5.155	...	...	...
3 123.2	236	1312	4.970	258	1322	5.090	283	1334	5.208	...	...	...
2 121.5	234	1311	5.020	256	1321	5.140	280	1332	5.260	...	...	...
1 119.9	232	1309	5.075	254	1319	5.193	278	1330	5.315	300	1339	5.433
0 118.4	230	1308	5.124	252	1318	5.247	276	1329	5.367	298	1338	5.488
9 116.8	228	1307	5.179	249	1316	5.300	273	1327	5.420	296	1337	5.545
8 115.2	226	1305	5.230	247	1315	5.355	271	1326	5.475	293	1335	5.600
7 113.7	224	1304	5.286	245	1314	5.410	269	1325	5.530	291	1334	5.660
6 112.2	221	1302	5.340	242	1312	5.463	266	1323	5.585	289	1333	5.717
5 110.7	219	1300	5.395	240	1310	5.520	264	1321	5.640	286	1332	5.775
4 109.2	217	1299	5.450	238	1309	5.580	262	1320	5.700	284	1330	5.836
3 107.7	215	1298	5.502	236	1308	5.638	259	1318	5.760	281	1328	5.898
2 106.3	213	1297	5.560	233	1306	5.695	257	1317	5.820	279	1327	5.960
1 104.8	211	1295	5.620	231	1305	5.750	255	1316	5.882	277	1326	6.023
0 103.4	208	1293	5.675	229	1303	5.810	252	1314	5.940	274	1324	6.088
9 102.0	206	1292	5.735	226	1301	5.868	250	1313	6.007	272	1323	6.154
8 100.6	204	1290	5.795	224	1300	5.928	247	1311	6.070	269	1321	6.220
7 99.2	202	1289	5.850	222	1299	5.990	245	1309	6.130	267	1320	6.285
6 97.8	200	1288	5.910	220	1297	6.052	243	1308	6.195	264	1318	6.355
5 96.5	198	1286	5.970	217	1295	6.115	240	1306	6.260	262	1316	6.435

Temperature Degrees F.	Pressure, P. per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	121	1247	5.535	139	1257	5.670	156	1265	5.790	174	1274	5.910
323	93.8	120	1246	5.595	137	1255	5.730	154	1264	5.850	172	1273	5.975
322	92.5	118	1245	5.655	135	1254	5.790	152	1262	5.910	170	1272	6.040
321	91.2	116	1244	5.715	133	1252	5.850	150	1261	5.975	168	1270	6.105
320	90.0	114	1242	5.775	131	1251	5.910	148	1260	6.040	165	1268	6.170
319	88.7	112	1241	5.835	129	1250	5.970	146	1258	6.105	163	1267	6.240
318	87.4	110	1239	5.900	127	1248	6.030	144	1257	6.175	161	1266	6.310
317	86.2	108	1238	5.965	125	1247	6.09	142	1256	6.240	159	1264	6.375
316	85.0	106	1237	6.030	123	1245	6.16	140	1254	6.310	157	1263	6.45
315	83.8	105	1236	6.09	121	1244	6.23	138	1253	6.380	155	1261	6.52
314	82.6	103	1234	6.16	119	1243	6.30	136	1251	6.450	153	1260	6.59
313	81.4	101	1233	6.23	117	1241	6.37	134	1250	6.525	151	1259	6.66
312	80.2	99	1232	6.30	116	1240	6.44	132	1249	6.60	149	1257	6.74
311	79.1	97	1230	6.37	114	1239	6.51	130	1247	6.67	147	1256	6.82
310	77.9	95	1229	6.44	112	1238	6.59	128	1246	6.74	144	1254	6.89
309	76.8	93	1227	6.51	110	1236	6.66	126	1244	6.82	142	1253	6.97
308	75.7	91	1226	6.59	108	1235	6.74	124	1243	6.89	140	1251	7.05
307	74.6	89	1225	6.67	106	1234	6.81	122	1242	6.97	138	1250	7.13
306	73.5	88	1224	6.74	104	1232	6.89	120	1240	7.05	136	1249	7.21
305	72.4	86	1222	6.82	102	1231	6.97	118	1239	7.14	134	1247	7.29
304	71.4	84	1221	6.90	100	1229	7.05	116	1238	7.22	132	1246	7.38
303	70.3	82	1220	6.98	98	1228	7.14	114	1236	7.30	130	1245	7.46
302	69.3	80	1218	7.06	96	1227	7.22	112	1235	7.38	128	1243	7.54
301	68.2	78	1217	7.14	94	1225	7.30	110	1233	7.47	126	1242	7.63
300	67.2	76	1215	7.23	92	1224	7.39	108	1232	7.55	124	1240	7.73
299	66.2	74	1214	7.31	90	1222	7.48	106	1231	7.64	122	1239	7.82
298	65.2	72	1213	7.39	88	1221	7.57	104	1229	7.73	119	1237	7.90
297	64.3	71	1212	7.48	86	1220	7.65	102	1228	7.82	117	1236	7.99
296	63.3	69	1210	7.57	85	1219	7.74	100	1227	7.91	115	1235	8.09
295	62.3	67	1209	7.66	83	1218	7.83	98	1225	8.00	113	1233	8.19
294	61.4	65	1208	7.75	81	1216	7.92	96	1224	8.09	111	1232	8.28
293	60.5	63	1206	7.84	79	1215	8.01	94	1223	8.18	109	1230	8.38
292	59.5	61	1205	7.93	77	1213	8.10	92	1221	8.28	107	1229	8.47
291	58.6	59	1204	8.03	75	1212	8.20	90	1220	8.38	105	1228	8.57
290	57.7	58	1203	8.13	73	1210	8.30	88	1218	8.48	103	1226	8.67
289	56.8	56	1201	8.22	71	1209	8.40	86	1217	8.58	101	1225	8.77
288	56.0	54	1200	8.32	69	1208	8.50	84	1216	8.68	99	1223	8.87
287	55.1	52	1198	8.42	67	1206	8.60	82	1214	8.79	97	1222	8.98
286	54.2	50	1197	8.51	65	1205	8.70	80	1213	8.89	95	1221	9.10
285	53.4	48	1196	8.61	63	1204	8.81	78	1212	9.00	93	1219	9.21
284	52.6	46	1194	8.72	61	1202	8.91	76	1210	9.10	91	1218	9.32
283	51.7	45	1193	8.83	60	1201	9.02	74	1209	9.22	89	1216	9.43
282	50.9	43	1192	8.94	58	1200	9.14	72	1207	9.33	87	1215	9.54
281	50.1	41	1191	9.05	56	1199	9.25	70	1206	9.44	85	1214	9.65
280	49.33	39	1189	9.16	54	1197	9.36	68	1205	9.55	83	1212	9.77
279	48.55	37	1188	9.27	52	1196	9.47	66	1203	9.67	81	1211	9.89
278	47.77	35	1186	9.38	50	1194	9.59	64	1202	9.78	79	1210	10.02
277	47.01	33	1185	9.50	48	1193	9.70	62	1200	9.90	76	1208	10.14

Temperature, Degrees Fa	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.
324	95.1	195	1284	6.05	215	1294	6.19	238	1305	6.33	260
323	93.8	193	1283	6.11	213	1293	6.26	236	1304	6.40	257
322	92.5	191	1282	6.18	210	1291	6.33	233	1302	6.46	255
321	91.2	189	1280	6.25	208	1290	6.40	231	1300	6.53	252
320	90.0	187	1279	6.32	206	1288	6.46	229	1299	6.60	250
319	88.7	185	1278	6.39	204	1287	6.53	226	1297	6.67	248
318	87.4	182	1276	6.45	201	1285	6.60	224	1296	6.75	245
317	86.2	180	1274	6.53	199	1284	6.67	222	1295	6.83	243
316	85.0	178	1273	6.60	197	1283	6.75	219	1293	6.90	240
315	83.8	176	1272	6.67	194	1281	6.82	217	1291	6.98	238
314	82.6	174	1270	6.75	192	1279	6.90	215	1290	7.06	235
313	81.4	172	1269	6.82	190	1278	6.97	212	1288	7.14	233
312	80.2	170	1268	6.90	188	1277	7.05	210	1287	7.22	231
311	79.1	168	1267	6.97	185	1275	7.13	208	1286	7.30	228
310	77.9	166	1265	7.05	183	1274	7.20	205	1284	7.38	226
309	76.8	163	1263	7.13	181	1272	7.29	203	1283	7.46	224
308	75.7	161	1262	7.20	179	1271	7.37	201	1281	7.54	221
307	74.6	159	1261	7.29	176	1269	7.45	198	1279	7.63	219
306	73.5	157	1259	7.37	174	1267	7.53	196	1278	7.72	216
305	72.4	154	1257	7.46	172	1266	7.62	194	1277	7.80	214
304	71.4	152	1256	7.54	170	1265	7.70	191	1275	7.89	211
303	70.3	150	1255	7.63	167	1263	7.79	189	1273	7.98	209
302	69.3	148	1253	7.71	165	1262	7.88	186	1271	8.07	207
301	68.2	146	1252	7.80	163	1260	7.97	184	1270	8.16	204
300	67.2	144	1250	7.89	161	1259	8.06	182	1269	8.25	202
299	66.2	141	1248	7.99	158	1257	8.16	180	1268	8.35	199
298	65.2	139	1247	8.08	156	1255	8.25	177	1266	8.44	197
297	64.3	137	1246	8.17	154	1254	8.34	175	1264	8.54	195
296	63.3	135	1244	8.26	151	1252	8.43	173	1263	8.64	192
295	62.3	133	1243	8.36	149	1251	8.53	170	1261	8.74	190
294	61.4	131	1242	8.46	147	1249	8.63	168	1260	8.85	187
293	60.5	128	1240	8.56	145	1248	8.74	165	1258	8.95	185
292	59.5	126	1238	8.66	143	1247	8.84	163	1257	9.05	183
291	58.6	124	1237	8.76	140	1245	8.95	161	1255	9.16	180
290	57.7	122	1236	8.86	138	1244	9.05	158	1253	9.27	178
289	56.8	120	1234	8.96	136	1242	9.16	156	1252	9.38	175
288	56.0	118	1233	9.06	134	1241	9.27	154	1251	9.50	173
287	55.1	116	1232	9.18	132	1240	9.38	151	1249	9.61	170
286	54.2	113	1230	9.29	129	1238	9.50	149	1247	9.72	168
285	53.4	111	1228	9.40	127	1236	9.61	147	1246	9.84	166
284	52.6	109	1227	9.51	125	1235	9.72	144	1244	9.95	163
283	51.7	107	1226	9.63	123	1234	9.84	142	1243	10.07	161
282	50.9	105	1224	9.74	120	1232	9.96	140	1242	10.20	158
281	50.1	103	1223	9.86	118	1230	10.09	137	1240	10.33	156
280	49.33	101	1222	9.98	116	1229	10.21	135	1238	10.46	153
279	48.55	98	1220	10.10	114	1228	10.33	133	1237	10.58	151
278	47.77	96	1218	10.23	112	1226	10.46	130	1235	10.71	149

Temperature, Degrees Fah.	Pressure, Poun per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.
276	46.26	32	1184	9.62	46	1192	9.83	60	1199	10.04	74
275	45.52	30	1183	9.74	44	1190	9.95	58	1198	10.15	72
274	44.78	28	1181	9.86	42	1189	10.07	56	1196	10.28	70
273	44.06	26	1180	9.98	41	1188	10.20	54	1195	10.40	68
272	43.35	24	1178	10.10	39	1187	10.33	52	1193	10.54	66
271	42.64	22	1177	10.23	37	1185	10.47	50	1192	10.67	64
270	41.95	21	1176	10.36	35	1184	10.60	49	1191	10.80	62
269	41.26	19	1175	10.50	33	1182	10.73	47	1190	10.94	60
268	40.58	17	1173	10.64	31	1181	10.87	45	1188	11.08	58
267	39.91	15	1172	10.76	29	1179	11.00	43	1187	11.22	56
266	39.26	13	1170	10.90	27	1178	11.15	41	1186	11.37	54
265	38.60	11	1169	11.05	25	1177	11.30	39	1184	11.52	52
264	37.96	10	1168	11.19	23	1175	11.45	37	1183	11.67	50
263	37.33	8	1167	11.33	21	1174	11.59	35	1181	11.81	49
262	36.71	6	1165	11.48	20	1173	11.74	33	1180	11.96	47
261	36.09	4	1164	11.63	18	1172	11.89	31	1178	12.12	45
260	35.48	2	1162	11.78	16	1170	12.04	29	1177	12.27	43
259	34.88	0	1161	11.93	14	1169	12.20	27	1176	12.45	41
258	34.29	9992	1159.9	11.99	12	1167	12.36	25	1174	12.60	39
257	33.71	9982	1158.6	12.17	10	1166	12.52	23	1173	12.78	37
256	33.14	9972	1157.3	12.35	8	1164	12.69	21	1172	12.96	35
255	32.57	9960	1156.0	12.55	6	1163	12.85	20	1171	13.14	33
254	32.01	9949	1154.6	12.74	4	1161	13.02	18	1169	13.30	31
253	31.46	9938	1153.4	12.94	2	1160	13.20	16	1168	13.49	29
252	30.92	9928	1152.1	13.15	0	1159	13.37	14	1167	13.66	27
251	30.38	9918	1150.8	13.35	9993	1157.8	13.45	12	1165	13.85	25
250	29.86	9907	1149.5	13.55	9982	1156.5	13.66	10	1164	14.05	23
249	29.34	9896	1148.2	13.77	9971	1155.2	13.87	8	1162	14.25	21
248	28.82	9885	1146.8	13.98	9960	1153.9	14.08	6	1161	14.45	19
247	28.32	9875	1145.5	14.19	9950	1152.6	14.30	4	1160	14.64	17
246	27.82	9864	1144.2	14.41	9939	1151.3	14.52	2	1158	14.84	15
245	27.33	9853	1142.9	14.63	9928	1150.0	14.74	0	1157	15.04	13
244	26.85	9843	1141.6	14.87	9918	1148.6	14.99	9992	1155.7	15.10	12
243	26.37	9832	1140.3	15.11	9907	1147.3	15.23	9981	1154.4	15.34	10
242	25.90	9822	1139.0	15.35	9896	1146.0	15.47	9971	1153.0	15.58	8
241	25.44	9811	1137.7	15.60	9885	1144.7	15.72	9959	1151.7	15.84	6
240	24.98	9801	1136.3	15.85	9875	1143.3	15.97	9949	1150.3	16.09	4
239	24.53	9790	1135.0	16.10	9864	1142.0	16.23	9938	1149.0	16.35	2
238	24.09	9780	1133.6	16.37	9854	1140.6	16.49	9927	1147.6	16.62	0
237	23.66	9769	1132.3	16.64	9842	1139.3	16.76	9916	1146.3	16.89	9989
236	23.23	9759	1131.0	16.91	9832	1138.0	17.04	9905	1144.9	17.17	9979
235	22.80	9748	1129.7	17.19	9821	1136.6	17.31	9894	1143.5	17.44	9967
234	22.39	9737	1128.3	17.47	9810	1135.2	17.60	9882	1142.1	17.73	9955
233	21.98	9726	1127.0	17.76	9799	1133.9	17.89	9872	1140.8	18.03	9945
232	21.57	9715	1125.6	18.05	9788	1132.5	18.19	9861	1139.4	18.32	9933

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.72			1.73			1.74			1.75		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	92	1216	10.48	107	1223	10.72	126	1233	10.97	144	1241	11.20
275	45.52	90	1214	10.60	105	1222	10.86	123	1231	11.10	141	1239	11.34
274	44.78	88	1213	10.74	103	1220	11.00	121	1229	11.24	139	1238	11.49
273	44.06	86	1212	10.87	101	1219	11.12	119	1228	11.39	137	1237	11.63
272	43.35	83	1210	11.00	99	1218	11.26	116	1226	11.51	134	1235	11.77
271	42.64	81	1208	11.15	96	1216	11.40	114	1225	11.66	132	1234	11.91
270	41.95	79	1207	11.29	94	1214	11.54	112	1224	11.80	129	1232	12.06
269	41.26	77	1206	11.43	92	1213	11.69	109	1222	11.94	127	1231	12.20
268	40.58	75	1204	11.57	90	1212	11.84	107	1220	12.10	124	1229	12.36
267	39.91	73	1203	11.72	88	1210	11.99	105	1219	12.25	122	1227	12.52
266	39.26	71	1202	11.87	86	1209	12.14	102	1217	12.40	120	1226	12.68
265	38.60	69	1200	12.03	83	1207	12.30	100	1216	12.56	117	1224	12.84
264	37.96	67	1199	12.19	81	1206	12.45	98	1214	12.71	115	1223	13.00
263	37.33	65	1197	12.34	79	1204	12.60	95	1212	12.88	113	1222	13.15
262	36.71	62	1195	12.50	77	1203	12.77	93	1211	13.04	110	1220	13.32
261	36.09	60	1194	12.67	75	1202	12.94	91	1210	13.20	108	1218	13.49
260	35.48	58	1193	12.84	73	1200	13.10	88	1208	13.38	105	1217	13.66
259	34.88	56	1191	13.00	70	1198	13.28	86	1207	13.55	103	1215	13.84
258	34.29	54	1190	13.18	68	1197	13.45	84	1205	13.73	101	1214	14.01
257	33.71	52	1189	13.36	66	1196	13.62	81	1203	13.90	98	1212	14.20
256	33.14	50	1187	13.54	64	1194	13.80	79	1202	14.09	96	1211	14.38
255	32.57	48	1186	13.70	62	1193	13.99	77	1201	14.28	93	1209	14.56
254	32.01	46	1184	13.90	60	1192	14.17	74	1199	14.46	91	1208	14.57
253	31.46	44	1183	14.09	58	1190	14.35	72	1197	14.65	89	1206	14.94
252	30.92	42	1182	14.28	55	1188	14.54	70	1196	14.83	86	1204	15.12
251	30.38	40	1180	14.46	53	1187	14.73	68	1195	15.03	84	1203	15.33
250	29.86	37	1178	14.66	51	1186	14.93	65	1193	15.24	81	1201	15.54
249	29.34	35	1177	14.86	49	1184	15.12	63	1191	15.45	79	1200	15.75
248	28.82	33	1176	15.05	47	1183	15.33	61	1190	15.65	77	1199	15.95
247	28.32	31	1174	15.27	45	1182	15.54	59	1189	15.86	74	1197	16.18
246	27.82	29	1173	15.48	43	1180	15.75	57	1188	16.08	72	1195	16.39
245	27.33	27	1172	15.69	41	1179	15.95	54	1186	16.30	70	1194	16.60
244	26.85	25	1170	15.90	39	1177	16.18	52	1184	16.51	67	1192	16.84
243	26.37	23	1169	16.11	36	1175	16.40	50	1183	16.75	65	1191	17.07
242	25.90	21	1167	16.33	34	1174	16.62	48	1181	16.98	62	1189	17.30
241	25.44	19	1166	16.55	32	1173	16.85	46	1180	17.21	60	1188	17.54
240	24.98	17	1165	16.78	30	1171	17.08	44	1179	17.45	58	1186	17.80
239	24.53	15	1163	17.00	28	1170	17.32	42	1177	17.70	56	1185	18.04
238	24.09	13	1162	17.24	26	1169	17.57	39	1175	17.95	53	1183	18.30
237	23.66	11	1160	17.48	24	1167	17.81	37	1174	18.20	51	1182	18.55
236	23.23	9	1159	17.71	22	1166	18.06	35	1173	18.46	49	1180	18.80
235	22.80	7	1158	17.97	20	1165	18.32	33	1172	18.72	46	1178	19.08
234	22.39	5	1156	18.21	18	1163	18.59	31	1170	18.99	44	1177	19.35
233	21.98	3	1155	18.49	16	1162	18.85	29	1169	19.24	42	1176	19.62
232	21.57	1	1153	18.75	14	1160	19.12	27	1168	19.50	40	1174	19.90
231	21.18	0.9995	1151.9	18.90	12	1159	19.40	25	1166	19.77	37	1172	20.18

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	1.53			1.53			1.53			1.53			1.53		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
228	20.02	9673	1120.2	19.28	9744	1127.1	19.42	9816	1134.0	19.56	9888	1140.8	19.71			
227	19.64	9662	1118.9	19.60	9734	1125.8	19.75	9805	1132.7	19.90	9877	1139.5	20.04			
226	19.28	9651	1117.6	19.95	9723	1124.4	20.10	9795	1131.3	20.25	9866	1138.1	20.39			
225	18.91	9640	1116.3	20.28	9712	1123.1	20.43	9783	1129.9	20.58	9855	1136.8	20.73			
224	18.56	9630	1114.9	20.63	9701	1121.7	20.78	9773	1128.5	20.93	9844	1135.4	21.09			
223	18.21	9620	1113.6	20.98	9691	1120.4	21.14	9762	1127.2	21.29	9833	1134.0	21.45			
222	17.86	9609	1112.2	21.33	9680	1119.0	21.49	9751	1125.8	21.65	9822	1132.6	21.81			
221	17.52	9600	1110.9	21.70	9670	1117.7	21.86	9741	1124.5	22.03	9812	1131.3	22.19			
220	17.19	9589	1109.5	22.08	9660	1116.3	22.25	9731	1123.1	22.41	9801	1129.9	22.57			
219	16.86	9578	1108.1	22.47	9648	1114.9	22.64	9719	1121.7	22.80	9790	1128.5	22.97			
218	16.53	9566	1106.7	22.86	9637	1113.5	23.03	9707	1120.3	23.20	9778	1127.0	23.37			
217	16.21	9556	1105.4	23.26	9626	1112.1	23.43	9696	1118.9	23.60	9767	1125.6	23.77			
216	15.90	9545	1104.0	23.66	9615	1110.7	23.84	9686	1117.5	24.01	9756	1124.3	24.18			
215	15.59	9535	1102.7	24.08	9605	1109.4	24.25	9675	1116.2	24.43	9745	1122.9	24.61			
214	15.29	9524	1101.3	24.51	9594	1108.0	24.69	9664	1114.8	24.86	9734	1121.5	25.04			
213	14.99	9514	1100.0	24.94	9583	1106.7	25.12	9653	1113.4	25.30	9723	1120.1	25.48			
212	14.70	9503	1098.6	25.33	9573	1105.3	25.52	9642	1112.0	25.71	9711	1118.7	25.89			
211	14.41	9492	1097.3	25.73	9562	1103.9	25.92	9631	1110.6	26.11	9700	1117.3	26.30			
210	14.12	9482	1095.9	26.20	9551	1102.5	26.39	9620	1109.2	26.58	9689	1115.9	26.77			
209	13.84	9471	1094.4	26.67	9540	1101.1	26.86	9609	1107.8	27.06	9678	1114.5	27.25			
208	13.57	9460	1093.1	27.15	9529	1099.8	27.35	9598	1106.4	27.55	9667	1113.1	27.74			
207	13.29	9449	1091.7	27.65	9518	1098.4	27.85	9587	1105.0	28.05	9656	1111.7	28.25			
206	13.03	9439	1090.3	28.16	9507	1097.0	28.36	9576	1103.6	28.56	9644	1110.3	28.77			
205	12.77	9428	1088.9	28.66	9496	1095.6	28.87	9565	1102.2	29.08	9633	1108.9	29.29			
204	12.51	9417	1087.6	29.18	9486	1094.2	29.40	9554	1100.8	29.61	9622	1107.5	29.82			
203	12.25	9407	1086.2	29.72	9475	1092.8	29.93	9543	1099.4	30.15	9611	1106.1	30.36			
202	12.01	9397	1084.9	30.26	9464	1091.5	30.48	9532	1098.1	30.69	9600	1104.7	30.91			
201	11.76	9387	1083.5	30.83	9455	1090.1	31.05	9522	1096.7	31.27	9590	1103.3	31.49			
200	11.52	9376	1082.1	31.39	9444	1088.7	31.62	9511	1095.3	31.84	9579	1101.9	32.07			
199	11.28	9365	1080.7	31.97	9433	1087.3	32.20	9500	1093.8	32.43	9568	1100.4	32.66			
198	11.05	9355	1079.3	32.56	9422	1085.9	32.80	9490	1092.5	33.03	9557	1099.1	33.27			
197	10.82	9343	1077.8	33.17	9410	1084.4	33.41	9478	1091.0	33.65	9545	1097.5	33.88			
196	10.60	9332	1076.4	33.79	9399	1083.0	34.04	9466	1089.5	34.28	9533	1096.1	34.52			
195	10.38	9322	1075.1	34.44	9389	1081.6	34.68	9456	1088.2	34.93	9523	1094.7	35.18			
194	10.16	9311	1073.7	35.08	9378	1080.2	35.34	9445	1086.7	35.59	9511	1093.3	35.84			
193	9.95	9301	1072.3	35.75	9368	1078.8	36.01	9434	1085.4	36.26	9501	1091.9	36.52			
192	9.74	9290	1070.9	36.44	9357	1077.4	36.70	9423	1083.9	36.96	9489	1090.4	37.22			
191	9.53	9279	1069.5	37.13	9345	1076.0	37.39	9412	1082.5	37.66	9478	1089.0	37.92			
190	9.33	9269	1068.1	37.84	9335	1074.6	38.11	9401	1081.1	38.38	9467	1087.6	38.65			
189	9.13	9259	1066.8	38.57	9325	1073.2	38.85	9391	1079.7	39.12	9457	1086.2	39.40			
188	8.94	9248	1065.3	39.31	9313	1071.8	39.59	9379	1078.3	39.87	9445	1084.7	40.15			
187	8.75	9237	1063.9	40.07	9303	1070.4	40.36	9369	1076.9	40.64	9434	1083.3	40.93			
186	8.56	9226	1062.5	40.85	9292	1069.0	41.14	9357	1075.4	41.43	9423	1081.9	41.72			
185	8.37	9216	1061.1	41.66	9281	1067.6	41.95	9347	1074.0	42.25	9412	1080.5	42.54			
184	8.19	9205	1059.7	42.48	9270	1066.1	42.78	9335	1072.6	43.08	9401	1079.0	43.38			
183	8.01	9194	1058.3	43.31	9259	1064.7	43.62	9325	1071.2	43.93	9390	1077.6	44.23			
182	7.84	9184	1056.9	44.17	9249	1063.2	44.45	9315	1069.8	44.25	9380	1076.2	44.53			
181	7.67	9174	1055.5	45.03	9239	1061.8	45.29	9305	1068.4	45.07	9370	1074.8	45.83			
180	7.50	9164	1054.1	45.90	9229	1060.4	46.05	9295	1067.0	45.85	9360	1073.4	46.69			
179	7.34	9154	1052.7	46.77	9219	1059.0	46.92	9285	1065.6	46.63	9350	1072.0	47.55			
178	7.17	9144	1051.3	47.64	9209	1057.6	47.79	9275	1064.2	47.45	9340	1070.6	48.41			
177	7.01	9134	1050.0	48.51	9199	1056.2	48.64	9265	1062.8	48.21	9330	1069.2	49.27			
176	6.84	9124	1048.6	49.38	9189	1054.8	49.50	9255	1061.4	48.97	9320	1067.8	50.13			
175	6.68	9114	1047.3	50.25	9179	1053.4	50.37	9245	1060.0	49.74	9310	1066.4	51.00			
174	6.51	9104	1045.9	51.12	9169	1052.0	51.24	9235	1058.6	50.61	9300	1065.0	51.86			
173	6.35	9094	1044.6	52.00	9159	1050.6	52.11	9225	1057.2	51.48	9290	1063.6	52.72			
172	6.18	9084	1043.2	52.87	9149	1049.2	52.98	9215	1055.8	52.35	9280	1062.2	53.58			
171	6.02	9074	1041.9	53.75	9139	1047.8	53.89	9205	1054.4	53.22	9270	1060.8	54.44			
170	5.85	9064	1040.5	54.62	9129	1046.4	54.80	9195	1053.0	54.09	9260	1059.4	55.30			
169	5.69	9054	1039.2	55.50	9119	1045.0	55.71	9185	1051.6	54.96	9250	1058.0	56.16			
168	5.52	9044	1037.8	56.37	9109	1043.6	56.58	9175	1050.2	55.83	9240	1056.6	57.02			
167	5.36	9034	1036.5	57.25	9099	1042.2	57.49	9165	1048.8	56.70	9230	1055.2	57.88			
166	5.20	9024	1035.1	58.12	9089	1040.8	58.36	9155	1047.4	57.57	9220	1053.8	58.74			
165	5.03	9014	1033.8	59.00	9079	1039.4	59.27	9145	1046.0	58.44	9210	1052.4	59.60			
164	4.87	9004	1032.4	59.87	9069	1038.0	60.14	9135	1044.6	59.31	9200	1051.0	60.46			
163	4.71	8994	1031.1	60.75	9059	1036.6	61.01	9125	1043.2	60.18	9190	1049.6	61.32			
162	4.54	8984	1029.7	61.62	9049	1035.2	61.88	9115	1041.8	61.05	9180	1048.2	62.18			
161	4.38	8974	1028.4	62.50	9039	1033.8	62.75	9105	1040.4	61.92	9170	1046.8	63.04			
160	4.22	8964	1027.0	63.37	9029	1032.4	63.62	9095	1039.0	62.79	9160	1045.4	63.90			
159	4.06	8954	1025.7	64.25	9019	1031.0	64.49	9085	1037.6	63.66	9150	1044.0	64.76			
158	3.90	8944	1024.3	65.12	9009	1029.6	65.36	9075	1036.2	64.53	9140	1042.6	65.62			
157	3.74	8934	1023.0	66.00	8999	1028.2	66.23	9065	1034.8	65.40	9130	1041.2	66.48			
156	3.58	8924	1021.6	66.87	8989	1026.8	67.10	9055	1033.4	66.27	9120	1039.8	67.34			
155	3.42	8914	1020.3	67.75	8979	1025.4	67.97	9045	1032.0	67.14	9110	1038.4	68.20			
154	3.26	8904	1018.9	68.62	8969	1024.0	68.84	9035	1030.6	68.01	9100	1037.0	69.06			
153	3.10	8894	1017.6	69.50	8959	1022.6	69.71	9025	1029.2	68.88	9090	1035.6	69.92			
152	2.94	8884	1016.2	70.37	8949	1021.2	70.58	9015	1027.8	69.75	9080	1034.2	70.78			

Temperature Degrees	Pressure, P per Squa Inch.	Quality.	Heat Con- tents,	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.
228	20.02	9960	1147.7	19.85	6	1155	20.21	18	1161	20.62	31	1168
227	19.64	9949	1146.4	20.19	4	1153	20.52	16	1160	20.91	29	1167
226	19.28	9938	1145.0	20.54	1	1151	20.82	14	1158	21.21	27	1166
225	18.91	9926	1143.6	20.89	9998	1150.4	21.04	12	1157	21.52	25	1164
224	18.56	9915	1142.2	21.24	9987	1149.0	21.39	10	1155	21.84	23	1163
223	18.21	9904	1140.9	21.60	9975	1147.7	21.76	8	1154	22.16	20	1161
222	17.86	9893	1139.5	21.96	9964	1146.3	22.12	6	1153	22.48	18	1159
221	17.52	9883	1138.1	22.35	9954	1144.9	22.51	4	1151	22.81	16	1158
220	17.19	9872	1136.7	22.74	9943	1143.5	22.90	2	1150	23.16	14	1157
219	16.86	9860	1135.3	23.13	9931	1142.1	23.30	0	1149	23.50	12	1155
218	16.53	9848	1133.8	23.54	9919	1140.6	23.71	9989	1147.3	23.87	10	1154
217	16.21	9837	1132.4	23.94	9907	1139.2	24.11	9977	1145.9	24.29	8	1153
216	15.90	9826	1131.0	24.36	9896	1137.8	24.53	9966	1144.5	24.71	6	1151
215	15.59	9815	1129.6	24.78	9885	1136.4	24.96	9955	1143.1	25.14	4	1150
214	15.29	9803	1128.2	25.22	9873	1135.0	25.40	9943	1141.7	25.58	2	1148
213	14.99	9792	1126.8	25.67	9862	1133.6	25.85	9931	1140.3	26.03	0	1147
212	14.70	9781	1125.4	26.08	9850	1132.2	26.26	9920	1138.9	26.45	9989	1145.6
211	14.41	9770	1124.0	26.49	9839	1130.8	26.67	9908	1137.5	26.86	9978	1144.2
210	14.12	9759	1122.6	26.96	9828	1129.3	27.15	9897	1136.0	27.35	9966	1142.7
209	13.84	9747	1121.2	27.45	9816	1127.9	27.64	9885	1134.6	27.84	9954	1141.2
208	13.57	9736	1119.8	27.94	9805	1126.5	28.14	9873	1133.1	28.34	9942	1139.8
207	13.29	9724	1118.4	28.45	9793	1125.0	28.65	9862	1131.7	28.86	9930	1138.4
206	13.03	9713	1116.9	28.97	9782	1123.6	29.18	9850	1130.3	29.38	9919	1136.9
205	12.77	9702	1115.5	29.49	9770	1122.2	29.70	9839	1128.8	29.91	9907	1135.5
204	12.51	9690	1114.1	30.03	9759	1120.7	30.24	9827	1127.4	30.45	9895	1134.0
203	12.25	9679	1112.7	30.58	9747	1119.3	30.79	9815	1125.9	31.01	9883	1132.6
202	12.01	9668	1111.3	31.13	9736	1117.9	31.35	9804	1124.5	31.57	9872	1131.2
201	11.76	9658	1109.9	31.72	9726	1116.5	31.94	9794	1123.1	32.16	9861	1129.7
200	11.52	9647	1108.4	32.30	9714	1115.0	32.52	9782	1121.6	32.75	9850	1128.2
199	11.28	9635	1107.0	32.89	9703	1113.6	33.12	9770	1120.2	33.36	9838	1126.8
198	11.05	9624	1105.6	33.50	9692	1112.2	33.74	9759	1118.8	33.97	9826	1125.4
197	10.82	9612	1104.1	34.12	9679	1110.7	34.36	9746	1117.2	34.60	9814	1123.8
196	10.60	9601	1102.6	34.76	9668	1109.2	35.01	9735	1115.8	35.25	9802	1122.3
195	10.38	9590	1101.3	35.42	9657	1107.6	35.67	9724	1114.3	35.92	9790	1120.9
194	10.16	9578	1099.8	36.09	9645	1106.3	36.34	9712	1112.9	36.59	9778	1119.4
193	9.95	9567	1098.4	36.78	9634	1104.9	37.03	9701	1111.5	37.29	9767	1118.0
192	9.74	9556	1097.0	37.48	9622	1103.5	37.74	9689	1110.0	38.00	9755	1116.5
191	9.53	9544	1095.5	38.19	9611	1102.0	38.45	9677	1108.5	38.72	9743	1115.0
190	9.33	9533	1094.1	38.92	9600	1100.6	39.19	9666	1107.1	39.46	9732	1113.6
189	9.13	9523	1092.7	39.67	9589	1099.2	39.95	9655	1105.7	40.22	9721	1112.1
188	8.94	9511	1091.2	40.43	9577	1097.7	40.71	9643	1104.2	40.99	9709	1110.6
187	8.75	9500	1089.8	41.21	9566	1096.3	41.50	9631	1102.7	41.78	9697	1109.2
186	8.56	9488	1088.3	42.01	9554	1094.8	42.31	9620	1101.2	42.60	9685	1107.7
185	8.37	9477	1086.9	42.84	9543	1093.4	43.13	9608	1099.8	43.43	9674	1106.3
184	8.19	9466	1085.4	43.68	9531	1091.9	43.99	9596	1098.3	44.29	9662	1104.7
183	8.01	9455	1084.0	44.54	9520	1090.4	44.85	9585	1096.9	45.16	9650	1103.3
182	7.84	9444	1082.6	45.42	9509	1089.0	45.73	9574	1095.4	46.04	9639	1101.8
181	7.67	9432	1081.1	46.32	9498	1087.5	46.63	9562	1093.9	46.95	9627	1100.3

Temperature, Degrees Fahr.		Pressure, Pounds per Square Inch.	1.68			1.69			1.70			1.71			1.72			1.73			1.74			1.75			1.76			1.77			1.78			1.79			1.80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Quality.	Heat Con- tents.		Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
180	7.50	9162	1054.0	45.94	9227	1060.4	46.26	9292	1066.8	46.59	9356	1073.2	46.91	179	7.34	9152	1052.6	46.85	9216	1059.0	47.18	9281	1065.4	47.51	9346	1071.7	47.84	178	7.17	9141	1051.2	47.78	9206	1057.6	48.12	9270	1063.9	48.46	9335	1070.3	48.79	177	7.01	9131	1049.8	48.75	9195	1056.1	49.09	9259	1062.5	49.44	9324	1068.9	49.78	176	6.86	9120	1048.3	49.74	9184	1054.7	50.09	9248	1061.0	50.44	9312	1067.4	50.79	175	6.70	9109	1046.9	50.74	9173	1053.3	51.09	9237	1059.6	51.45	9301	1065.9	51.81	174	6.55	9099	1045.5	51.77	9162	1051.8	52.13	9226	1058.2	52.50	9290	1064.5	52.86	173	6.41	9088	1044.1	52.83	9152	1050.4	53.20	9215	1056.7	53.57	9279	1063.1	53.94	172	6.26	9077	1042.7	53.91	9141	1049.0	54.29	9205	1055.3	54.67	9268	1061.6	55.04	171	6.12	9066	1041.2	55.00	9130	1047.5	55.39	9193	1053.8	55.77	9256	1060.1	56.16	170	5.98	9056	1039.8	56.14	9119	1046.1	56.54	9182	1052.3	56.93	9245	1058.6	57.32	169	5.84	9045	1038.3	57.32	9108	1044.6	57.72	9171	1050.9	58.12	9234	1057.2	58.52	168	5.71	9034	1036.9	58.52	9097	1043.2	58.92	9160	1049.5	59.33	9223	1055.7	59.74	167	5.58	9024	1035.5	59.75	9086	1041.7	60.16	9149	1048.0	60.58	9212	1054.3	60.99	166	5.45	9013	1034.0	60.99	9076	1040.3	61.41	9138	1046.5	61.84	9201	1052.8	62.26	165	5.32	9002	1032.6	62.27	9065	1038.8	62.70	9127	1045.1	63.13	9190	1051.3	63.57	164	5.20	8991	1031.1	63.59	9054	1037.4	64.03	9116	1043.6	64.47	9179	1049.9	64.91	163	5.08	8981	1029.7	64.93	9043	1035.9	65.38	9105	1042.2	65.83	9167	1048.4	66.28	162	4.960	8970	1028.3	66.32	9032	1034.5	66.77	9094	1040.7	67.23	9156	1046.9	67.69	161	4.844	8961	1026.9	67.74	9023	1033.1	68.21	9085	1039.3	68.68	9146	1045.5	69.15	160	4.729	8950	1025.4	69.19	9012	1031.6	69.67	9073	1037.8	70.15	9135	1044.0	70.62	159	4.617	8939	1023.9	70.68	9001	1030.1	71.17	9062	1036.3	71.66	9124	1042.5	72.14	158	4.508	8928	1022.5	72.21	8990	1028.7	72.71	9051	1034.8	73.21	9113	1041.0	73.70	157	4.400	8918	1021.1	73.79	8979	1027.2	74.30	9041	1033.4	74.80	9102	1039.6	75.31	156	4.295	8907	1019.6	75.41	8968	1025.8	75.93	9030	1031.9	76.44	9091	1038.1	76.96	155	4.191	8896	1018.1	77.05	8957	1024.3	77.58	9018	1030.4	78.11	9079	1036.6	78.64	154	4.090	8885	1016.7	78.74	8946	1022.8	79.28	9007	1028.9	79.82	9068	1035.1	80.36	153	3.991	8875	1015.2	80.48	8936	1021.4	81.03	8997	1027.5	81.58	9057	1033.6	82.13	152	3.894	8864	1013.8	82.17	8925	1019.9	82.83	8985	1026.0	83.39	9046	1032.1	83.96	151	3.799	8853	1012.3	84.10	8914	1018.4	84.67	8974	1024.5	85.25	9035	1030.6	85.82	150	3.706	8843	1010.8	85.99	8903	1017.0	86.57	8964	1023.0	87.16	9024	1029.1	87.75	149	3.615	8832	1009.4	87.91	8892	1015.4	88.51	8952	1021.5	89.11	9012	1027.6	89.71	148	3.526	8821	1007.9	89.89	8881	1014.0	90.50	8942	1020.1	91.11	9002	1026.2	91.73	147	3.439	8810	1006.4	91.89	8870	1012.5	92.52	8930	1018.6	93.14	8990	1024.6	93.77	146	3.353	8800	1005.0	93.98	8860	1011.0	94.62	8920	1017.1	95.26	8979	1023.2	95.90	145	3.270	8789	1003.5	96.15	8849	1009.5	96.81	8908	1015.6	97.46	8968	1021.6	98.11	144	3.188	8778	1002.0	98.32	8838	1008.1	98.99	8897	1014.1	99.65	8957	1020.1	100.3	143	3.108	8767	1000.5	100.6	8827	1006.6	101.2	8886	1012.6	101.9	8945	1018.6	102.6	142	3.029	8757	999.1	102.9	8816	1005.1	103.6	8875	1011.1	104.3	8935	1017.1	105.0	141	2.953	8747	997.6	105.3	8806	1003.6	106.0	8865	1009.6	106.7	8924	1015.6	107.5	140	2.877	8736	996.1	107.8	8795	1002.1	108.5	8854	1008.1	109.3	8913	1014.1	110.0	139	2.804	8725	994.6	110.4	8784	1000.6	111.1	8843	1006.6	111.9	8902	1012.6	112.6	138	2.732	8715	993.2	112.9	8774	999.1	113.7	8832	1005.1	114.5	8891	1011.1	115.2	137	2.662	8704	991.6	115.6	8762	997.6	116.4	8821	1003.6	117.1	8879	1009.5	117.9	136	2.593	8693	990.2	118.3	8751	996.1	119.1	8810	1002.1	119.9	8868	1008.0	120.7	135	2.526	8682	988.7	121.1	8740	994.6	121.9	8799	1000.6	122.7	8857	1006.5	123.6	134	2.460	8671	987.1	124.1	8729	992.1	124.9	8787	998.6	125.7	8846	1005.0	126.6	133	2.395	8660	985.6	126.4	8718	990.6	126.7	8776	997.1	127.5	8835	1000.1	128.4	132	2.330	8649	984.1	128.2	8707	989.1	128.5	8765	996.1	129.3	8814	999.1	130.1	131	2.265	8638	982.6	130.0	8696	987.6	130.9	8754	995.1	131.7	8803	998.1	132.5	130	2.200	8627	981.1	131.8	8685	986.1	131.9	8743	994.1	132.7	8792	997.1	133.5	129	2.135	8616	979.6	133.7	8674	984.6	133.9	8732	993.1	134.5	8781	996.1	135.3	128	2.070	8605	978.1	135.0	8663	983.1	135.1	8721	992.1	136.1	8771	995.1	136.9	127	2.005	8594	976.6	136.2	8652	982.1	136.3	8710	991.1	137.1	8760	994.1	137.9	126	1.940	8583	975.1	137.4	8641	981.1	137.5	8700	990.1	138.1	8750	993.1	138.9	125	1.875	8572	973.6	138.7	8630	980.1	138.9	8690	989.1	139.1	8740	992.1	139.9	124	1.810	8561	972.1	139.0	8619	979.1	139.1	8680	988.1	140.1	8730	991.1	140.9	123	1.745	8550	970.6	140.2	8608	978.1	140.3	8669	987.1	141.1	8720	990.1	141.9	122	1.680	8539	969.1	141.7	8597	977.1	141.9	8658	986.1	142.1	8710	989.1	142.9	121	1.615	8528	967.6	142.0	8586	976.1	142.1	8647	985.1	143.1	8700	988.1	143.9	120	1.550	8517	966.1	142.9	8575	975.1	142.1	8636	984.1	144.1	8690	987.1	144.9	119	1.485	8506	964.6	143.8	8564	974.1	142.1	8625	983.1	145.1	8680	986.1	145.9	118	1.420	8495	963.1	144.5	8553	973.1	141.1	8614	982.1	146.1	8669	985.1	146.9	117	1.355	8484	961.6	145.2	8542	972.1	140.1	8603	981.1	147.1	8658	984.1	147.9	116	1.290	8473	960.1	145.9	8531	971.1	139.1	8592	980.1	148.1	8647	983.1	148.9	115	1.225	8462	958.6	146.6	8520	970.1	138.1	8581	979.1	149.1	8636	982.1	149.9	114	1.160	8451	957.1	147.3	8509	969.1	137.1	8570	978.1	150.1	8625	981.1	150.9	113	1.095	8440	955.6	148.0	8498	968.1	136.1	8559	977.1	151.1	8614	980.1	151.9	112	1.030	8429	954.1	148.7	8487	967.1	135.1	8548	976.1	152.1	8603	979.1	152.9	111	1.065	8418	952.6	149.4	8476	966.1	134.1	8537	975.1	153.1	8592	978.1	153.9	110	1.000	8407	951.1	150.1	8465	965.1	133.1	8526	974.1	154.1	8581	977.1	154.9	109	1.035	8396	949.6	150.8	8454	964.1	132.1	8515	973.1	155.1	8570	976.1	155.9	108	1.070	8385	948.1	151.5	8443	963.1	131.1	8504	972.1	156.1	8559	975.1	156.9	107	1.105	8374	946.6	152.2	8432	962.1	130.1	8493	971.1	157.1	8548	974.1	157.9	106	1.140	8363	945.1	152.9	8421	961.1	129.1	8482	970.1	158.1	8537	973.1	158.9	105	1.175	8352	943.6	153.6	8410	960.1	128.1	8471	969.1	159.1	8526	972.1	159.9	104	1.210	8341	942.1	154.3	8399	959.1	127.1	8460	968.1	160.1	8515	971.1	160.9	103	1.245	8330	940.6	155.0	8388	958.1	126.1	8449	967.1	161.1	8504	970.1	161.9	102	1.280	8319	939.1	155.7	8377	957.1	125.1	8438	966.1	162.1	8493	969.1	162.9	101	1.315	8308	937.6	156.4	8366	956.1	124.1	8427	965.1	163.1	8482	968.1	163.9	100	1.350	8297	936.1	157.1	8355	955.1	123.1	8416	964.1	164.1	8471	967.1	164.9	99	1.385	8286	934.6	157.8	8344	954.1	122.1	8405	963.1	165.1	8460	966.1	165.9	98	1.420	8275	933.1	158.5	8333	953.1	121.1	8394	962.1	166.1	8449	965.1	166.9	97	1.455	8264	931.6	159.2	8322	952.1	120.1	8383	961.1	167.1	8438	964.1	167.9	96	1.490	8253	930.1	159.9	8311	951.1	119.1	8372	960.1	168.1	8427	963.1	168.9	95	1.525	8242	928.6	160.6	8300	950.1	118.1	8361	959.1	169.1	8416	962.1	169.9	94	1.560	8231	927.1	161.3	8289	949.1	117.1	8350	958.1	170.1	8405	961.1	170.9	93	1.595	8220	925.6	

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.72			1.73			1.74			1.75		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	9421	1079.6	47.24	9486	1086.0	47.56	9550	1092.4	47.89	9615	1098.7	48.21
179	7.34	9410	1078.1	48.17	9475	1084.5	48.50	9539	1090.9	48.83	9604	1097.3	49.16
178	7.17	9399	1076.7	49.13	9463	1083.1	49.46	9528	1089.4	49.80	9592	1095.8	50.14
177	7.01	9388	1075.2	50.12	9452	1081.6	50.46	9516	1088.0	50.81	9581	1094.3	51.15
176	6.86	9376	1073.7	51.14	9440	1080.1	51.49	9504	1086.4	51.84	9568	1092.8	52.19
175	6.70	9365	1072.3	52.16	9429	1078.6	52.52	9493	1085.0	52.88	9557	1091.3	53.23
174	6.55	9354	1070.8	53.22	9418	1077.2	53.59	9481	1083.5	53.95	9545	1089.8	54.31
173	6.41	9343	1069.4	54.31	9406	1075.7	54.68	9470	1082.0	55.05	9534	1088.4	55.42
172	6.26	9332	1067.9	55.42	9395	1074.2	55.80	9459	1080.6	56.17	9522	1086.9	56.55
171	6.12	9320	1066.4	56.54	9383	1072.7	56.93	9446	1079.0	57.31	9510	1085.3	57.70
170	5.98	9308	1064.9	57.71	9372	1071.2	58.10	9435	1077.5	58.50	9498	1083.8	58.89
169	5.84	9297	1063.5	58.92	9360	1069.8	59.32	9423	1076.0	59.72	9486	1082.3	60.12
168	5.71	9286	1062.0	60.15	9349	1068.3	60.55	9412	1074.6	60.96	9475	1080.8	61.37
167	5.58	9275	1060.5	61.41	9339	1066.8	61.82	9300	1073.1	62.24	9463	1079.3	62.66
166	5.45	9263	1059.1	62.69	9326	1065.3	63.11	9389	1071.6	63.53	9451	1077.8	63.96
165	5.32	9252	1057.6	64.00	9315	1063.8	64.43	9377	1070.1	64.86	9440	1076.3	65.29
164	5.20	9241	1056.1	65.35	9303	1062.3	65.79	9366	1068.6	66.23	9428	1074.8	66.67
163	5.08	9230	1054.6	66.73	9292	1060.8	67.18	9354	1067.1	67.63	9416	1073.3	68.08
162	4.960	9218	1053.1	68.15	9280	1059.3	68.61	9342	1065.5	69.07	9404	1071.8	69.53
161	4.844	9208	1051.7	69.62	9270	1057.9	70.08	9332	1064.1	70.55	9394	1070.3	71.02
160	4.729	9197	1050.2	71.10	9259	1056.4	71.58	9321	1062.6	72.06	9382	1068.8	72.54
159	4.617	9185	1048.7	72.63	9247	1054.9	73.12	9309	1061.1	73.61	9371	1067.2	74.09
158	4.508	9174	1047.2	74.20	9236	1053.4	74.70	9297	1059.5	75.20	9359	1065.7	75.69
157	4.400	9163	1045.7	75.82	9224	1051.9	76.33	9286	1058.1	76.83	9348	1064.2	77.34
156	4.295	9152	1044.2	77.48	9213	1050.4	78.00	9274	1056.5	78.52	9336	1062.7	79.04
155	4.191	9141	1042.7	79.17	9202	1048.9	79.70	9263	1055.0	80.22	9324	1061.2	80.75
154	4.090	9129	1041.2	80.90	9190	1047.3	81.44	9251	1053.5	81.98	9312	1059.6	82.52
153	3.991	9118	1039.7	82.68	9179	1045.9	83.24	9240	1052.0	83.79	9301	1058.1	84.34
152	3.894	9107	1038.2	84.52	9167	1044.3	85.08	9228	1050.5	85.64	9289	1056.6	86.21
151	3.799	9095	1036.7	86.40	9156	1042.8	86.97	9216	1048.9	87.54	9277	1055.0	88.12
150	3.706	9084	1035.2	88.34	9145	1041.3	88.92	9205	1047.4	89.51	9265	1053.5	90.10
149	3.615	9073	1033.7	90.31	9133	1039.8	90.91	9193	1045.9	91.51	9253	1052.0	92.11
148	3.526	9062	1032.2	92.34	9122	1038.3	92.95	9182	1044.4	93.56	9242	1050.5	94.18
147	3.439	9050	1030.7	94.39	9110	1036.8	95.02	9170	1042.8	95.64	9230	1048.9	96.27
146	3.353	9039	1029.2	96.54	9099	1035.3	97.18	9159	1041.3	97.82	9219	1047.4	98.45
145	3.270	9028	1027.7	98.76	9087	1033.7	99.42	9147	1039.8	100.1	9207	1045.8	100.7
144	3.188	9016	1026.2	101.0	9076	1032.2	101.7	9136	1038.3	102.3	9195	1044.3	103.0
143	3.108	9005	1024.6	103.3	9064	1030.7	104.0	9124	1036.7	104.6	9183	1042.7	105.3
142	3.029	8994	1023.1	105.7	9053	1029.2	106.4	9112	1035.2	107.1	9171	1041.2	107.8
141	2.953	8984	1021.6	108.2	9043	1027.6	108.9	9102	1033.6	109.6	9161	1039.7	110.3
140	2.877	8972	1020.1	110.7	9031	1026.1	111.4	9090	1032.1	112.2	9149	1038.1	112.9
139	2.804	8961	1018.6	113.4	9020	1024.6	114.1	9078	1030.5	114.8	9137	1036.5	115.6
138	2.732	8950	1017.1	116.0	9008	1023.0	116.7	9067	1029.0	117.5	9126	1035.0	118.3
137	2.662	8938	1015.5	118.7	8996	1021.5	119.5	9055	1027.4	120.2	9114	1033.4	121.0
136	2.593	8927	1014.0	121.5	8985	1019.9	122.3	9043	1025.9	123.1	9102	1031.8	123.9
135	2.526	8915	1012.5	124.4	8974	1018.4	125.2	9032	1024.4	126.0	9090	1030.3	126.8

Temperature, Degrees Fah.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.333	8650	984.2	130.1	8708	990.1	131.0	8765	996.0	131.8	8823	1001.9	132.7
131	2.272	8639	982.7	133.2	8697	988.6	134.1	8754	994.5	135.0	8812	1000.4	135.9
130	2.212	8628	981.2	136.4	8686	987.1	137.3	8743	993.0	138.2	8801	998.9	139.1
129	2.153	8618	979.7	139.8	8675	985.6	140.8	8732	991.5	141.7	8790	997.3	142.7
128	2.096	8607	978.2	143.2	8664	984.1	144.2	8721	989.9	145.1	8779	995.8	146.1
127	2.040	8596	976.7	146.7	8653	982.6	147.7	8710	988.4	148.7	8767	994.3	149.7
126	1.985	8585	975.2	150.4	8642	981.0	151.4	8699	986.9	152.4	8756	992.7	153.4
125	1.932	8574	973.5	154.2	8631	979.5	155.2	8688	985.4	156.2	8745	991.2	157.2
124	1.880	8563	972.2	158.0	8620	978.0	159.0	8677	983.8	160.1	8734	989.7	161.1
123	1.829	8553	970.7	161.9	8609	976.5	163.0	8666	982.3	164.0	8722	988.2	165.1
122	1.779	8542	969.1	166.0	8598	974.9	167.1	8655	980.7	168.2	8711	986.6	169.3
121	1.730	8532	967.6	170.2	8589	973.4	171.3	8645	979.2	172.5	8701	985.1	173.6
120	1.683	8521	966.1	174.5	8577	971.9	175.7	8634	977.7	176.8	8690	983.5	178.0
119	1.636	8510	964.6	179.0	8566	970.4	180.2	8623	976.2	181.3	8679	982.0	182.5
118	1.591	8500	963.1	183.6	8556	968.9	184.8	8612	974.7	186.0	8668	980.4	187.2
117	1.547	8489	961.6	188.3	8545	967.4	189.5	8601	973.1	190.8	8656	978.9	192.0
116	1.504	8478	960.0	193.1	8533	965.8	194.4	8589	971.5	195.7	8645	977.3	196.9
115	1.462	8467	958.5	198.1	8523	964.3	199.4	8579	970.0	200.7	8634	975.8	202.0
114	1.421	8456	957.0	203.3	8512	962.7	204.6	8567	968.5	206.0	8623	974.2	207.3
113	1.381	8445	955.5	208.6	8501	961.2	210.0	8556	967.0	211.3	8611	972.7	212.7
112	1.342	8435	953.9	214.1	8490	959.7	215.5	8545	965.4	216.9	8600	971.1	218.3
111	1.304	8424	952.4	219.8	8479	958.2	221.2	8534	963.9	222.6	8589	969.6	224.1
110	1.266	8413	950.9	225.6	8468	956.6	227.0	8523	962.3	228.5	8578	968.8	230.0
109	1.230	8402	949.4	231.6	8457	955.1	233.1	8512	960.7	234.6	8566	966.4	236.1
108	1.195	8392	947.8	237.7	8446	953.5	239.3	8501	959.1	240.8	8555	964.8	242.4
107	1.160	8380	946.3	244.0	8435	952.0	245.6	8489	957.6	247.2	8544	967.3	248.8
106	1.127	8370	944.7	250.6	8424	950.4	252.2	8478	956.0	253.8	8533	961.7	255.5
105	1.094	8359	943.2	257.5	8413	948.8	259.1	8467	954.5	260.8	8522	960.1	262.5
104	1.062	8348	941.6	264.5	8402	947.2	266.2	8456	952.9	267.9	8510	958.5	269.6
103	1.031	8337	940.1	271.7	8391	945.7	273.5	8445	951.4	275.2	8499	957.0	277.0
102	1.000	8326	938.5	279.1	8380	944.1	280.9	8434	949.8	282.7	8488	955.4	284.5
101	0.971	8316	937.0	286.8	8370	942.6	288.6	8424	948.2	290.5	8478	953.8	292.3
100	0.942	8305	935.4	294.6	8359	941.0	296.5	8412	946.6	298.4	8466	952.2	300.3
99	0.914	8294	933.9	302.9	8348	939.5	304.9	8401	945.0	306.8	8455	950.6	308.8
98	0.887	8284	932.3	311.4	8337	937.9	313.4	8390	943.4	315.4	8444	949.0	317.4
97	0.860	8273	930.8	320.1	8326	936.4	322.3	8379	941.9	324.2	8432	947.5	326.2
96	0.834	8263	929.3	329.2	8316	934.8	331.3	8369	940.4	333.4	8422	946.0	335.5
95	0.809	8252	927.8	338.5	8305	933.3	340.7	8358	938.8	342.8	8411	944.4	345.0
94	0.784	8241	926.2	348.1	8294	931.7	350.3	8347	937.2	352.6	8399	942.8	354.8
93	0.761	8230	924.6	358.0	8283	930.1	360.3	8335	935.7	362.6	8388	941.3	364.9
92	0.737	8219	923.0	368.3	8272	928.5	370.7	8324	934.1	373.0	8377	939.6	375.4
91	0.715	8208	921.5	379.0	8261	927.0	381.4	8313	932.5	383.8	8365	938.0	386.2
90	0.693	8197	919.9	389.9	8250	925.4	392.3	8302	930.9	394.8	8354	936.4	397.3
89	0.671	8186	918.3	401.1	8238	923.8	403.7	8291	929.3	406.2	8343	934.8	408.8
88	0.650	8175	916.7	412.7	8227	922.2	415.3	8279	927.7	417.9	8331	933.1	420.6
87	0.630	8165	915.2	424.9	8217	920.6	427.6	8269	926.1	430.3	8320	931.6	433.0
86	0.610	8154	913.6	437.4	8206	919.0	440.1	8257	924.5	442.9	8309	930.0	445.7

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.333	8881	1007.8	133.6	8939	1013.7	134.4	8997	1019.6	135.3	9055	1025.6	136.2
131	2.272	8870	1006.3	136.8	8928	1012.2	137.7	8985	1018.1	138.6	9043	1024.0	139.4
130	2.212	8859	1004.8	140.1	8916	1010.7	141.0	8974	1016.6	141.9	9031	1022.5	142.8
129	2.153	8847	1003.2	143.6	8905	1009.1	144.5	8962	1015.0	145.5	9020	1020.9	146.4
128	2.096	8836	1001.7	147.0	8893	1007.6	148.0	8951	1013.4	148.9	9008	1019.3	149.9
127	2.040	8825	1000.2	150.6	8882	1006.1	151.6	8939	1011.9	152.6	8996	1017.8	153.6
126	1.985	8813	998.6	154.4	8870	1004.5	155.4	8927	1010.3	156.4	8984	1016.2	157.4
125	1.932	8802	997.1	158.3	8859	1003.0	159.3	8916	1008.8	160.3	8973	1014.7	161.3
124	1.880	8791	995.5	162.2	8847	1001.3	163.2	8904	1007.2	164.3	8961	1013.0	165.3
123	1.829	8779	994.0	166.2	8836	999.8	167.3	8892	1005.6	168.3	8949	1010.5	169.4
122	1.779	8768	992.4	170.4	8824	998.2	171.5	8881	1004.0	172.6	8937	1009.8	173.6
121	1.730	8758	990.9	174.7	8814	996.7	175.8	8870	1002.5	177.0	8927	1008.3	178.1
120	1.683	8746	989.3	179.1	8802	995.1	180.3	8859	1000.9	181.4	8915	1006.7	182.6
119	1.636	8735	987.8	183.7	8791	993.6	184.9	8847	999.4	186.1	8903	1005.1	187.2
118	1.591	8724	986.2	188.4	8780	992.0	189.6	8836	997.8	190.9	8892	1003.5	192.1
117	1.547	8712	984.6	193.2	8768	990.4	194.5	8824	996.2	195.7	8880	1001.9	197.0
116	1.504	8700	983.0	198.2	8756	988.8	199.5	8812	994.5	200.7	8868	1000.3	202.0
115	1.462	8690	981.5	203.3	8745	987.3	204.6	8801	993.0	205.9	8856	998.7	207.2
114	1.421	8678	979.9	208.6	8734	985.7	210.0	8789	991.4	211.3	8844	997.1	212.6
113	1.381	8667	978.4	214.1	8722	984.1	215.4	8777	989.8	216.8	8832	995.5	218.2
112	1.342	8656	976.8	219.7	8711	982.5	221.1	8766	988.2	222.5	8821	993.9	223.9
111	1.304	8644	975.3	225.5	8699	980.9	227.0	8754	986.6	228.4	8809	992.3	229.8
110	1.266	8633	973.7	231.4	8688	979.3	232.9	8743	985.0	234.4	8797	990.7	235.9
109	1.230	8621	972.1	237.6	8676	977.8	239.1	8731	983.4	240.6	8785	989.1	242.1
108	1.195	8610	970.5	243.9	8665	976.2	245.5	8719	981.8	247.0	8774	987.5	248.6
107	1.160	8598	968.9	250.4	8653	974.6	252.0	8707	980.2	253.6	8762	985.9	255.1
106	1.127	8587	967.3	257.1	8641	973.0	258.7	8696	978.6	260.4	8750	984.3	262.0
105	1.094	8576	965.7	264.1	8630	971.4	265.8	8684	977.0	267.5	8739	982.7	269.1
104	1.062	8564	964.1	271.3	8618	969.8	273.0	8672	975.4	274.7	8726	981.0	276.5
103	1.031	8553	962.6	278.7	8607	968.2	280.5	8661	973.8	282.3	8715	979.4	284.0
102	1.000	8542	961.0	286.3	8596	966.6	288.1	8649	972.2	289.9	8703	977.8	291.7
101	0.971	8531	959.4	294.2	8585	965.0	296.0	8639	970.6	297.9	8692	976.2	299.7
100	0.942	8519	957.8	302.2	8573	963.4	304.1	8627	969.0	306.0	8680	974.6	307.9
99	0.914	8508	956.2	310.7	8562	961.8	312.7	8615	967.4	314.6	8668	973.0	316.6
98	0.887	8497	954.6	319.4	8550	960.2	321.4	8603	965.8	323.4	8657	971.3	325.4
97	0.860	8486	953.1	328.3	8539	958.5	330.4	8592	964.2	332.4	8645	969.8	334.5
96	0.834	8475	951.5	337.6	8528	957.0	339.8	8581	962.6	341.9	8634	968.2	344.0
95	0.809	8464	949.9	347.2	8516	955.4	349.3	8569	961.0	351.5	8622	966.6	353.7
94	0.784	8452	948.3	357.0	8505	953.8	359.2	8558	959.4	361.5	8611	964.9	363.7
93	0.761	8441	946.7	367.2	8493	952.2	369.5	8546	957.8	371.8	8599	963.3	374.0
92	0.737	8429	945.1	377.7	8482	950.6	380.1	8534	956.1	382.4	8587	961.6	384.8
91	0.715	8418	943.5	388.7	8470	949.0	391.1	8523	954.5	393.5	8575	960.0	395.9
90	0.693	8406	941.9	399.8	8459	947.4	402.3	8511	952.9	404.8	8563	958.3	407.3
89	0.671	8395	940.3	411.3	8447	945.8	413.9	8499	951.3	416.5	8551	956.7	419.0
88	0.650	8383	938.6	423.2	8435	944.1	425.8	8487	949.6	428.4	8539	955.0	431.1
87	0.630	8372	937.0	435.7	8424	942.5	438.4	8476	948.0	441.1	8528	953.4	443.8
86	0.610	8361	935.4	448.5	8413	940.9	451.2	8464	946.3	454.0	8516	951.8	456.8

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.76			1.77			1.78			1.79			1.80		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	282	1324	6.64	...	...	...	...	...	...	...	...	...	...	...	...
323	93.8	280	1323	6.70	...	...	...	...	...	...	...	...	...	...	...	...
322	92.5	277	1321	6.76	300	1330	6.93	...	...	...	...	...	...	...	...	...
321	91.2	275	1320	6.84	297	1328	7.00	...	...	...	...	...	...	...	...	...
320	90.0	272	1318	6.91	295	1327	7.07	...	...	...	...	...	...	...	...	...
319	88.7	270	1317	6.99	292	1325	7.14	...	...	...	...	...	...	...	...	...
318	87.4	267	1315	7.07	289	1323	7.22	...	...	...	...	...	...	...	...	...
317	86.2	265	1314	7.15	287	1322	7.30	...	...	...	...	...	...	...	...	...
316	85.0	262	1312	7.23	284	1321	7.38	...	...	...	...	...	...	...	...	...
315	83.8	260	1310	7.30	282	1319	7.47	...	...	...	...	...	...	...	...	...
314	82.6	257	1309	7.38	279	1318	7.55	...	...	...	...	...	...	...	...	...
313	81.4	255	1307	7.47	276	1316	7.64	...	...	...	...	...	...	...	...	...
312	80.2	252	1305	7.55	274	1315	7.72	298	1325	7.91	...	...	...	...	...	...
311	79.1	250	1304	7.64	271	1313	7.80	296	1324	8.00	...	...	...	...	...	...
310	77.9	247	1302	7.72	268	1311	7.89	293	1322	8.09	...	...	...	...	...	...
309	76.8	245	1301	7.81	266	1310	7.98	290	1321	8.18	...	...	...	...	...	...
308	75.7	242	1299	7.90	263	1308	8.07	288	1319	8.27	...	...	...	...	...	...
307	74.6	240	1298	7.99	261	1307	8.16	285	1318	8.36	...	...	...	...	...	...
306	73.5	237	1296	8.08	258	1305	8.25	282	1316	8.45	...	...	...	...	...	...
305	72.4	235	1295	8.17	255	1304	8.34	279	1314	8.55	...	...	...	...	...	...
304	71.4	232	1293	8.26	253	1302	8.44	277	1313	8.64	...	...	...	...	...	...
303	70.3	230	1292	8.35	250	1301	8.54	274	1311	8.74	298	1321	8.96	...	...	...
302	69.3	227	1290	8.45	247	1299	8.64	271	1309	8.84	295	1320	9.06	...	...	...
301	68.2	225	1289	8.55	245	1298	8.74	269	1308	8.95	292	1318	9.17	...	...	...
300	67.2	222	1287	8.64	242	1296	8.84	266	1307	9.05	290	1317	9.27	...	...	...
299	66.2	220	1286	8.74	240	1295	8.94	263	1305	9.16	287	1315	9.37	...	...	...
298	65.2	217	1284	8.85	237	1293	9.04	260	1303	9.27	284	1313	9.48	...	...	...
297	64.3	214	1282	8.95	235	1292	9.14	258	1302	9.38	281	1312	9.59	...	...	...
296	63.3	212	1281	9.05	232	1290	9.25	255	1300	9.49	278	1310	9.70	...	...	...
295	62.3	209	1279	9.15	229	1288	9.35	252	1298	9.59	275	1308	9.80	...	...	...
294	61.4	207	1278	9.26	227	1287	9.46	250	1297	9.70	272	1306	9.92	...	...	...
293	60.5	204	1276	9.37	224	1285	9.57	247	1295	9.80	270	1305	10.03	...	...	...
292	59.5	202	1275	9.49	222	1284	9.68	244	1293	9.91	267	1303	10.15	...	...	...
291	58.6	199	1273	9.60	219	1282	9.80	242	1292	10.02	264	1302	10.27	...	...	...
290	57.7	197	1272	9.70	216	1280	9.91	239	1290	10.14	261	1300	10.40	...	...	...
289	56.8	194	1270	9.81	214	1279	10.02	236	1289	10.26	258	1298	10.52	...	...	...
288	56.0	192	1269	9.93	211	1277	10.14	234	1288	10.39	255	1297	10.64	...	...	...
287	55.1	189	1267	10.05	209	1276	10.26	231	1286	10.50	252	1295	10.77	...	...	...
286	54.2	187	1266	10.17	206	1274	10.40	228	1284	10.63	250	1294	10.90	...	...	...
285	53.4	184	1264	10.29	203	1272	10.52	225	1282	10.75	247	1292	11.03	...	...	...
284	52.6	182	1262	10.41	201	1271	10.64	223	1281	10.88	244	1290	11.16	...	...	...
283	51.7	179	1260	10.53	198	1269	10.77	220	1279	11.00	241	1288	11.30	...	...	...
282	50.9	177	1259	10.66	196	1268	10.90	217	1278	11.13	238	1287	11.44	...	...	...
281	50.1	174	1257	10.79	193	1266	11.03	215	1276	11.27	235	1285	11.57	...	...	...
280	49.33	172	1256	10.92	191	1265	11.16	212	1275	11.40	232	1283	11.70	...	...	...

Temperature, Degrees Fah.	Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
324	95.1	...	...	...	...	...	...	...	...	...	...	...	...
323	93.8	...	...	...	...	...	...	...	...	...	...	...	...
322	92.5	...	...	...	...	...	...	...	...	...	...	...	...
321	91.2	...	...	...	...	...	...	...	...	...	...	...	...
320	90.0	...	...	...	...	...	...	...	...	...	...	...	...
319	88.7	...	...	...	...	...	...	...	...	...	...	...	...
318	87.4	...	...	...	...	...	...	...	...	...	...	...	...
317	86.2	...	...	...	...	...	...	...	...	...	...	...	...
316	85.0	...	...	...	...	...	...	...	...	...	...	...	...
315	83.8	...	...	...	...	...	...	...	...	...	...	...	...
314	82.6	...	...	...	...	...	...	...	...	...	...	...	...
313	81.4	...	...	...	...	...	...	...	...	...	...	...	...
312	80.2	...	...	...	...	...	...	...	...	...	...	...	...
311	79.1	...	...	...	...	...	...	...	...	...	...	...	...
310	77.9	...	...	...	...	...	...	...	...	...	...	...	...
309	76.8	...	...	...	...	...	...	...	...	...	...	...	...
308	75.7	...	...	...	...	...	...	...	...	...	...	...	...
307	74.6	...	...	...	...	...	...	...	...	...	...	...	...
306	73.5	...	...	...	...	...	...	...	...	...	...	...	...
305	72.4	...	...	...	...	...	...	...	...	...	...	...	...
304	71.4	...	...	...	...	...	...	...	...	...	...	...	...
303	70.3	...	...	...	...	...	...	...	...	...	...	...	...
302	69.3	...	...	...	...	...	...	...	...	...	...	...	...
301	68.2	...	...	...	...	...	...	...	...	...	...	...	...
300	67.2	...	...	...	...	...	...	...	...	...	...	...	...
299	66.2	...	...	...	...	...	...	...	...	...	...	...	...
298	65.2	...	...	...	...	...	...	...	...	...	...	...	...
297	64.3	...	...	...	...	...	...	...	...	...	...	...	...
296	63.3	...	...	...	...	...	...	...	...	...	...	...	...
295	62.3	...	...	...	...	...	...	...	...	...	...	...	...
294	61.4	298	1318	10.19	...	...	...	...	...	...	...	...	...
293	60.5	295	1316	10.30	...	...	...	...	...	...	...	...	...
292	59.5	292	1314	10.41	...	...	...	...	...	...	...	...	...
291	58.6	289	1312	10.53	...	...	...	...	...	...	...	...	...
290	57.7	286	1311	10.65	...	...	...	...	...	...	...	...	...
289	56.8	283	1309	10.77	...	...	...	...	...	...	...	...	...
288	56.0	280	1307	10.90	...	...	...	...	...	...	...	...	...
287	55.1	277	1306	11.03	...	...	...	...	...	...	...	...	...
286	54.2	274	1304	11.15	298	1314	11.43	...	...	...	...	...	...
285	53.4	271	1302	11.28	295	1313	11.56	...	...	...	...	...	...
284	52.6	269	1301	11.41	292	1311	11.69	...	...	...	...	...	...
283	51.7	266	1299	11.55	289	1309	11.82	...	...	...	...	...	...
282	50.9	263	1298	11.68	286	1307	11.95	...	...	...	...	...	...
281	50.1	260	1296	11.81	283	1306	12.09	...	...	...	...	...	...
280	49.33	257	1294	11.95	280	1304	12.23	...	...	...	...	...	...
279	48.55	254	1292	12.10	277	1302	12.38	...	...	...	...	...	...

Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.76			1.77			1.78			1.79		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	162	1250	11.46	180	1258	11.70	201	1268	11.96	221	1277	12.27
275	45.52	159	1248	11.60	178	1257	11.85	198	1266	12.11	218	1275	12.41
274	44.78	157	1247	11.74	175	1255	12.00	196	1265	12.26	215	1273	12.57
273	44.06	154	1245	11.88	173	1254	12.16	193	1263	12.40	212	1272	12.71
272	43.35	152	1244	12.02	170	1252	12.30	190	1261	12.57	210	1270	12.88
271	42.64	149	1242	12.17	167	1250	12.45	188	1260	12.73	207	1269	13.03
270	41.95	147	1241	12.33	165	1249	12.60	185	1258	12.88	204	1267	13.19
269	41.26	144	1239	12.49	162	1247	12.76	182	1257	13.04	201	1265	13.34
268	40.58	141	1237	12.63	160	1246	12.92	180	1255	13.20	198	1264	13.50
267	39.91	139	1235	12.80	157	1244	13.09	177	1253	13.37	195	1262	13.67
266	39.26	137	1234	12.95	155	1243	13.25	174	1252	13.54	193	1261	13.84
265	38.60	134	1232	13.11	152	1241	13.42	172	1251	13.71	190	1259	14.00
264	37.96	132	1231	13.27	150	1240	13.59	169	1249	13.89	187	1257	14.19
263	37.33	129	1229	13.44	147	1238	13.76	166	1247	14.06	184	1255	14.37
262	36.71	127	1228	13.61	145	1237	13.93	163	1245	14.24	181	1253	14.55
261	36.09	124	1226	13.78	142	1235	14.10	161	1244	14.41	178	1252	14.72
260	35.48	122	1225	13.95	139	1233	14.28	158	1242	14.60	176	1250	14.91
259	34.88	119	1223	14.15	137	1232	14.47	155	1240	14.79	173	1249	15.10
258	34.29	117	1222	14.33	134	1230	14.66	153	1239	14.99	170	1247	15.30
257	33.71	114	1220	14.51	132	1229	14.83	150	1237	15.17	167	1245	15.51
256	33.14	112	1219	14.70	129	1227	15.03	147	1236	15.38	165	1244	15.71
255	32.57	109	1217	14.89	127	1226	15.22	144	1234	15.58	162	1242	15.91
254	32.01	107	1216	15.09	124	1224	15.42	142	1232	15.78	159	1240	16.13
253	31.46	104	1214	15.29	122	1222	15.62	139	1231	15.99	156	1239	16.34
252	30.92	102	1212	15.49	119	1220	15.82	136	1229	16.19	154	1237	16.56
251	30.38	99	1210	15.68	117	1219	16.01	134	1228	16.40	151	1235	16.77
250	29.86	97	1209	15.89	114	1217	16.23	131	1226	16.61	148	1234	16.99
249	29.34	95	1208	16.10	112	1216	16.45	128	1224	16.83	145	1232	17.21
248	28.82	92	1206	16.31	109	1214	16.67	126	1223	17.05	143	1231	17.45
247	28.32	90	1205	16.52	107	1213	16.90	123	1221	19.27	140	1229	17.68
246	27.82	87	1203	16.75	104	1211	17.12	120	1219	17.50	137	1227	17.91
245	27.33	85	1202	16.98	102	1210	17.36	118	1218	17.74	134	1225	18.15
244	26.85	82	1200	17.20	99	1208	17.59	115	1216	17.97	132	1224	18.40
243	26.37	80	1198	17.44	96	1206	17.83	112	1214	18.21	129	1222	18.64
242	25.90	77	1196	17.69	94	1205	18.07	110	1213	18.46	126	1220	18.99
241	25.44	75	1195	17.91	91	1203	18.31	107	1211	18.71	124	1219	19.15
240	24.98	73	1194	18.16	89	1202	18.57	105	1210	18.96	121	1217	19.40
239	24.53	70	1192	18.40	86	1200	18.83	102	1208	19.23	119	1216	19.68
238	24.09	68	1191	18.66	84	1199	19.10	99	1206	19.50	116	1214	19.94
237	23.66	66	1189	18.93	81	1197	19.35	97	1205	19.77	113	1212	20.20
236	23.23	63	1187	19.20	79	1195	19.62	94	1203	20.04	111	1211	20.50
235	22.80	61	1186	19.46	76	1193	19.90	92	1202	20.32	108	1209	20.78
234	22.39	59	1185	19.73	74	1192	20.19	89	1200	20.60	106	1208	21.06
233	21.98	56	1183	20.00	72	1191	20.48	87	1199	20.90	103	1206	21.35
232	21.57	54	1182	20.29	69	1189	20.75	84	1197	21.20	100	1204	21.65
231	21.18	52	1180	20.59	67	1188	21.03	82	1195	21.50	98	1203	21.95
230	20.78	50	1179	20.88	64	1186	21.34	79	1193	21.80	95	1201	22.27

TEMPERATURE-ENTROPY TABLE.

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Temperature, Degrees Fahr.	Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
276	46.26	245	1287	12.54	267	1297	12.81	293	1308	13.11	...	...	...
275	45.52	242	1286	12.69	264	1295	12.98	289	1306	13.27	...	...	...
274	44.78	239	1284	12.84	261	1293	13.13	286	1304	13.44	...	...	...
273	44.06	236	1282	13.00	258	1292	13.29	283	1302	13.60	...	...	...
272	43.35	233	1280	13.15	255	1290	13.45	280	1301	13.77	...	...	...
271	42.64	230	1279	13.30	252	1288	13.61	277	1299	13.93	299	13.08	14.25
270	41.95	227	1277	13.48	249	1287	13.78	273	1297	14.10	296	1306	14.43
269	41.26	224	1275	13.64	246	1285	13.94	270	1295	14.28	293	1305	14.60
268	40.58	221	1274	13.81	243	1283	14.11	267	1293	14.46	289	1302	14.78
267	39.91	218	1272	13.99	239	1281	14.30	263	1291	14.62	286	1301	14.96
266	39.26	215	1270	14.16	236	1279	14.49	260	1290	14.81	282	1299	15.15
265	38.60	212	1268	14.34	233	1277	14.65	257	1288	15.00	279	1297	15.34
264	37.96	209	1267	14.51	230	1276	14.82	254	1286	15.20	276	1295	15.54
263	37.33	206	1265	14.70	227	1274	15.01	250	1284	15.39	272	1293	15.73
262	36.71	203	1263	14.89	224	1272	15.20	247	1282	15.59	269	1291	15.92
261	36.09	200	1262	15.08	221	1271	15.40	244	1281	15.79	266	1290	16.13
260	35.48	197	1260	15.27	217	1269	15.61	241	1279	15.98	262	1288	16.33
259	34.88	194	1258	15.47	214	1267	15.80	237	1277	16.19	259	1286	16.54
258	34.29	192	1257	15.67	211	1265	16.00	234	1275	16.40	255	1284	16.75
257	33.71	189	1255	15.87	208	1263	16.23	231	1273	16.60	252	1282	16.96
256	33.14	186	1253	16.08	205	1262	16.45	228	1272	16.81	249	1280	17.19
255	32.57	183	1252	16.30	202	1260	16.67	225	1270	17.03	245	1278	17.40
254	32.01	180	1250	16.50	199	1258	16.89	221	1268	17.26	242	1277	17.64
253	31.46	177	1248	16.71	196	1256	17.10	218	1266	17.49	239	1275	17.87
252	30.92	174	1246	16.94	193	1255	17.32	215	1264	17.71	235	1273	18.10
251	30.38	171	1245	17.16	190	1253	17.55	212	1263	17.95	232	1271	18.35
250	29.86	168	1243	17.38	187	1251	17.78	209	1261	18.19	229	1269	18.60
249	29.34	165	1241	17.60	184	1250	18.02	205	1259	18.42	226	1268	18.84
248	28.82	162	1239	17.85	181	1248	18.25	202	1257	18.68	222	1266	19.09
247	28.32	159	1238	18.09	178	1246	18.50	199	1255	18.92	219	1264	19.34
246	27.82	156	1236	18.32	175	1244	18.75	196	1254	19.19	216	1262	19.60
245	27.33	153	1234	18.56	172	1243	19.00	193	1252	19.44	212	1260	19.85
244	26.85	151	1233	18.81	169	1241	19.25	190	1250	19.70	209	1259	20.11
243	26.37	148	1231	19.08	166	1240	19.50	187	1249	19.95	206	1257	20.39
242	25.90	145	1230	19.31	163	1238	19.77	184	1247	20.21	202	1255	20.65
241	25.44	142	1228	19.59	160	1236	20.02	181	1245	20.50	199	1253	20.93
240	24.98	139	1226	19.85	158	1235	20.30	177	1243	20.77	196	1251	21.20
239	24.53	136	1224	20.11	155	1233	20.58	174	1241	21.05	192	1249	21.50
238	24.09	133	1223	20.40	152	1231	20.85	171	1240	21.34	189	1247	21.80
237	23.66	131	1221	20.66	149	1230	21.15	168	1238	21.63	186	1246	22.10

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
228	20.02	45	1176	21.50	59	1183	21.95	74	1190	22.44	90	1198	22.90
227	19.64	43	1174	21.80	57	1181	22.29	72	1189	22.76	87	1196	23.24
226	19.28	41	1173	22.13	55	1180	22.60	69	1187	23.09	85	1195	23.58
225	18.91	38	1171	22.47	52	1178	22.93	67	1186	23.41	82	1193	23.90
224	18.56	36	1170	22.80	50	1177	23.27	65	1185	23.75	80	1192	24.25
223	18.21	34	1168	23.14	48	1176	23.60	62	1183	24.10	77	1190	24.60
222	17.86	32	1167	23.50	45	1174	23.95	60	1182	24.45	75	1189	24.95
221	17.52	30	1166	23.84	43	1172	24.31	57	1180	24.80	72	1187	25.31
220	17.19	27	1164	24.20	41	1171	24.67	55	1178	25.18	69	1185	25.69
219	16.86	25	1163	24.55	39	1170	25.05	52	1176	25.55	67	1184	26.05
218	16.53	23	1161	24.93	36	1168	25.41	50	1175	25.92	64	1182	26.44
217	16.21	21	1160	25.30	34	1166	25.80	48	1174	26.30	62	1181	26.84
216	15.90	19	1158	25.68	32	1165	26.20	45	1172	26.70	59	1179	27.25
215	15.59	17	1157	26.05	30	1164	26.60	43	1171	27.10	57	1178	27.67
214	15.29	15	1156	26.45	28	1163	27.00	41	1169	27.50	54	1176	28.10
213	14.99	12	1154	26.85	25	1160	27.40	38	1167	27.90	52	1174	28.52
212	14.70	10	1152	27.29	23	1159	27.85	36	1166	28.35	50	1173	28.95
211	14.41	8	1151	27.70	21	1158	28.30	34	1165	28.79	47	1171	29.40
210	14.12	6	1150	28.14	19	1156	28.71	32	1163	29.23	45	1170	29.85
209	13.84	4	1149	28.60	17	1155	29.17	29	1161	29.70	42	1168	30.30
208	13.57	2	1147	29.05	15	1154	29.63	27	1160	30.20	40	1167	30.78
207	13.29	9999	1145.1	29.26	12	1152	30.10	25	1159	30.70	38	1166	31.25
206	13.03	9987	1143.6	29.79	10	1150	30.55	22	1157	31.05	35	1164	31.72
205	12.77	9975	1142.1	30.33	8	1149	31.05	20	1155	31.60	33	1162	32.20
204	12.51	9963	1140.6	30.88	6	1147	31.50	18	1154	32.10	31	1161	32.70
203	12.25	9951	1139.2	31.44	4	1146	32.00	16	1153	32.60	28	1159	33.20
202	12.01	9940	1137.8	32.01	2	1145	32.55	14	1151	33.15	26	1158	33.75
201	11.76	9929	1136.3	32.61	9997	1142.9	32.83	11	1149	33.70	24	1156	34.30
200	11.52	9917	1134.8	33.20	9985	1141.4	33.43	9	1148	34.20	22	1155	34.85
199	11.28	9905	1133.4	33.82	9973	1139.9	34.05	7	1146	34.75	19	1153	35.40
198	11.05	9894	1131.9	34.44	9961	1138.5	34.67	5	1145	35.30	17	1152	36.00
197	10.82	9881	1130.4	35.08	9948	1136.9	35.32	3	1144	35.90	15	1150	36.60
196	10.60	9869	1128.9	35.73	9936	1135.4	35.98	0	1142	36.50	13	1148	37.20
195	10.38	9857	1127.4	36.41	9924	1134.0	36.66	9991	1140.5	36.91	10	1147	37.80
194	10.16	9845	1125.9	37.10	9912	1132.5	37.35	9979	1139.0	37.60	8	1145	38.40
193	9.95	9834	1124.5	37.80	9900	1131.0	38.06	9967	1137.6	38.31	6	1144	39.05
192	9.74	9822	1123.0	38.52	9888	1129.5	38.78	9955	1136.0	39.04	4	1143	39.70
191	9.53	9810	1121.5	39.25	9876	1128.0	39.51	9942	1134.5	39.78	1	1141	40.30
190	9.33	9798	1120.1	40.00	9864	1126.6	40.27	9930	1133.1	40.55	9997	1139.6	40.82
189	9.13	9787	1118.6	40.77	9853	1125.1	41.05	9919	1131.6	41.32	9985	1138.1	41.60
188	8.94	9774	1117.1	41.55	9840	1123.6	41.83	9906	1130.1	42.11	9972	1136.5	42.39
187	8.75	9763	1115.7	42.35	9829	1122.1	42.64	9894	1128.6	42.92	9960	1135.1	43.21
186	8.56	9751	1114.2	43.18	9816	1120.6	43.47	9882	1127.1	43.76	9947	1133.5	44.05
185	8.37	9739	1112.7	44.02	9805	1119.1	44.32	9870	1125.6	44.61	9935	1132.0	44.91
184	8.19	9727	1111.2	44.89	9792	1117.6	45.19	9857	1124.0	45.49	9923	1130.5	45.79

Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.	Quality.	Heat Contents.	Specific Volume.
20.02	106	1206	23.40	123	1214	23.94	141	1222	24.48	158	1230	25.00
19.64	104	1205	23.74	120	1212	24.27	138	1221	24.80	155	1228	25.38
19.28	101	1203	24.09	118	1211	24.61	135	1219	25.15	152	1227	25.74
18.91	98	1201	24.43	115	1209	24.97	132	1217	25.50	149	1225	26.10
18.56	96	1200	24.80	112	1208	25.34	129	1216	25.88	146	1223	26.49
18.21	93	1198	25.15	109	1206	25.72	127	1214	26.25	143	1222	26.85
17.86	90	1196	25.51	107	1205	26.10	124	1213	26.64	140	1220	27.25
17.52	88	1195	25.88	104	1203	26.47	121	1211	27.04	137	1218	27.65
17.19	85	1193	26.26	101	1200	26.86	118	1209	27.44	134	1216	28.05
16.86	83	1192	26.65	98	1199	27.25	115	1207	27.85	131	1215	28.45
16.53	80	1190	27.05	96	1198	27.67	112	1205	28.27	128	1213	28.88
16.21	78	1189	27.45	93	1196	28.09	110	1204	28.69	126	1212	29.30
15.90	75	1187	27.85	90	1194	28.50	107	1202	29.10	123	1210	29.74
15.59	72	1185	28.29	88	1193	28.91	104	1201	29.53	120	1208	30.19
15.29	70	1184	28.70	85	1191	29.35	101	1199	29.97	117	1206	30.64
14.99	67	1182	29.14	82	1189	29.80	98	1197	30.44	114	1205	31.10
14.70	65	1181	29.58	80	1188	30.24	96	1196	30.90	111	1203	31.55
14.41	62	1179	30.02	77	1186	30.70	93	1194	31.35	109	1202	32.05
14.12	60	1178	30.48	74	1184	31.15	90	1192	31.85	106	1200	32.55
13.84	57	1176	30.95	72	1183	31.65	87	1190	32.35	103	1198	33.05
13.57	55	1175	31.40	69	1181	32.10	85	1189	32.85	100	1197	33.55
13.29	52	1173	31.90	66	1179	32.60	82	1187	33.35	97	1195	34.05
13.03	50	1171	32.40	64	1178	33.10	79	1186	33.90	94	1193	34.60
12.77	47	1169	32.90	61	1176	33.60	77	1184	34.40	91	1191	35.10
12.51	45	1168	33.40	59	1175	34.10	74	1182	34.90	89	1190	35.60
12.25	43	1167	33.95	56	1173	34.65	71	1181	35.45	86	1188	36.15
12.01	40	1166	34.50	54	1172	35.20	69	1179	36.00	83	1187	36.70
11.76	38	1165	35.05	51	1170	35.75	66	1178	36.55	80	1185	37.30
11.52	35	1162	35.60	49	1169	36.32	64	1176	37.10	78	1183	37.85
11.28	33	1160	36.15	46	1167	36.90	61	1174	37.65	75	1182	38.45
11.05	30	1158	36.75	44	1166	37.49	58	1173	38.25	72	1180	39.05
10.82	28	1157	37.35	41	1164	38.05	56	1171	38.90	69	1178	39.65
10.60	26	1156	37.95	39	1162	38.64	53	1169	39.50	67	1177	40.30
10.38	23	1154	38.57	36	1160	39.25	50	1168	40.14	64	1175	40.90
10.16	21	1153	39.20	34	1159	39.90	48	1166	40.77	61	1173	41.60
9.95	19	1151	39.85	31	1157	40.55	45	1164	41.47	59	1172	42.30
9.74	16	1149	40.50	29	1156	41.23	43	1163	42.08	56	1170	43.00
9.53	14	1148	41.15	26	1154	41.90	40	1161	42.80	54	1169	43.70
9.33	12	1147	41.82	24	1153	42.62	38	1160	43.54	51	1167	44.40
9.13	9	1145	42.48	22	1151	43.35	35	1158	44.25	48	1166	45.20
8.94	7	1143	43.20	19	1149	44.05	33	1157	45.00	46	1164	45.95
8.75	5	1142	43.90	17	1148	44.80	30	1155	45.75	43	1162	46.70
8.56	2	1140	44.65	14	1146	45.50	28	1154	46.50	41	1161	47.50
8.37	0	1138	45.35	12	1145	46.25	25	1152	47.25	38	1159	48.30
8.19	9988	1136.9	46.09	10	1143	47.05	23	1150	48.05	36	1157	49.10
8.01	0076	1135.4	47.00	7	1141	47.85	20	1148	48.90	33	1155	49.90

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	17.6			17.7			17.8			17.9			18.0			18.1			18.2			18.3			18.4			18.5			18.6			18.7			18.8			18.9			19.0			19.1			19.2			19.3			19.4			19.5			19.6			19.7			19.8			19.9			20.0			20.1			20.2			20.3			20.4			20.5			20.6			20.7			20.8			20.9			21.0			21.1			21.2			21.3			21.4			21.5			21.6			21.7			21.8			21.9			22.0			22.1			22.2			22.3			22.4			22.5			22.6			22.7			22.8			22.9			23.0			23.1			23.2			23.3			23.4			23.5			23.6			23.7			23.8			23.9			24.0			24.1			24.2			24.3			24.4			24.5			24.6			24.7			24.8			24.9			25.0			25.1			25.2			25.3			25.4			25.5			25.6			25.7			25.8			25.9			26.0			26.1			26.2			26.3			26.4			26.5			26.6			26.7			26.8			26.9			27.0			27.1			27.2			27.3			27.4			27.5			27.6			27.7			27.8			27.9			28.0			28.1			28.2			28.3			28.4			28.5			28.6			28.7			28.8			28.9			29.0			29.1			29.2			29.3			29.4			29.5			29.6			29.7			29.8			29.9			30.0			30.1			30.2			30.3			30.4			30.5			30.6			30.7			30.8			30.9			31.0			31.1			31.2			31.3			31.4			31.5			31.6			31.7			31.8			31.9			32.0			32.1			32.2			32.3			32.4			32.5			32.6			32.7			32.8			32.9			33.0			33.1			33.2			33.3			33.4			33.5			33.6			33.7			33.8			33.9			34.0			34.1			34.2			34.3			34.4			34.5			34.6			34.7			34.8			34.9			35.0			35.1			35.2			35.3			35.4			35.5			35.6			35.7			35.8			35.9			36.0			36.1			36.2			36.3			36.4			36.5			36.6			36.7			36.8			36.9			37.0			37.1			37.2			37.3			37.4			37.5			37.6			37.7			37.8			37.9			38.0			38.1			38.2			38.3			38.4			38.5			38.6			38.7			38.8			38.9			39.0			39.1			39.2			39.3			39.4			39.5			39.6			39.7			39.8			39.9			40.0			40.1			40.2			40.3			40.4			40.5			40.6			40.7			40.8			40.9			41.0			41.1			41.2			41.3			41.4			41.5			41.6			41.7			41.8			41.9			42.0			42.1			42.2			42.3			42.4			42.5			42.6			42.7			42.8			42.9			43.0			43.1			43.2			43.3			43.4			43.5			43.6			43.7			43.8			43.9			44.0			44.1			44.2			44.3			44.4			44.5			44.6			44.7			44.8			44.9			45.0			45.1			45.2			45.3			45.4			45.5			45.6			45.7			45.8			45.9			46.0			46.1			46.2			46.3			46.4			46.5			46.6			46.7			46.8			46.9			47.0			47.1			47.2			47.3			47.4			47.5			47.6			47.7			47.8			47.9			48.0			48.1			48.2			48.3			48.4			48.5			48.6			48.7			48.8			48.9			49.0			49.1			49.2			49.3			49.4			49.5			49.6			49.7			49.8			49.9			50.0			50.1			50.2			50.3			50.4			50.5			50.6			50.7			50.8			50.9			51.0			51.1			51.2			51.3			51.4			51.5			51.6			51.7			51.8			51.9			52.0			52.1			52.2			52.3			52.4			52.5			52.6			52.7			52.8			52.9			53.0			53.1			53.2			53.3			53.4			53.5			53.6			53.7			53.8			53.9			54.0			54.1			54.2			54.3			54.4			54.5			54.6			54.7			54.8			54.9			55.0			55.1			55.2			55.3			55.4			55.5			55.6			55.7			55.8			55.9			56.0			56.1			56.2			56.3			56.4			56.5			56.6			56.7			56.8			56.9			57.0			57.1			57.2			57.3			57.4			57.5			57.6			57.7			57.8			57.9			58.0			58.1			58.2			58.3			58.4			58.5			58.6			58.7			58.8			58.9			59.0			59.1			59.2			59.3			59.4			59.5			59.6			59.7			59.8			59.9			60.0			60.1			60.2			60.3			60.4			60.5			60.6			60.7			60.8			60.9			61.0			61.1			61.2			61.3			61.4			61.5			61.6			61.7			61.8			61.9			62.0			62.1			62.2			62.3			62.4			62.5			62.6			62.7			62.8			62.9			63.0			63.1			63.2			63.3			63.4			63.5			63.6			63.7			63.8			63.9			64.0			64.1			64.2			64.3			64.4			64.5			64.6			64.7			64.8			64.9			65.0			65.1			65.2			65.3			65.4			65.5			65.6			65.7			65.8			65.9			66.0			66.1			66.2			66.3			66.4			66.5			66.6			66.7			66.8			66.9			67.0			67.1			67.2			67.3			67.4			67.5			67.6			67.7			67.8			67.9			68.0			68.1			68.2			68.3			68.4			68.5			68.6			68.7			68.8			68.9			69.0			69.1			69.2			69.3			69.4			69.5			69.6			69.7			69.8			69.9			70.0			70.1			70.2			70.3			70.4			70.5			70.6			70.7			70.8			70.9			71.0			71.1			71.2			71.3			71.4			71.5			71.6			71.7			71.8			71.9			72.0			72.1			72.2			72.3			72.4			72.5			72.6			72.7			72.8			72.9			73.0			73.1			73.2			73.3			73.4			73.5			73.6			73.7			73.8			73.9			74.0			74.1			74.2			74.3			74.4			74.5			74.6			74.7			74.8			74.9			75.0			75.1			75.2			75.3			75.4			75.5			75.6			75.7			75.8			75.9			76.0			76.1			76.2			76.3			76.4			76.5			76.6			76.7			76.8			76.9			77.0			77.1			77.2			77.3			77.4			77.5			77.6			77.7			77.8			77.9			78.0			78.1			78.2			78.3			78.4			78.5			78.6			78.7			78.8			78.9			79.0			79.1			79.2			79.3			79.4			79.5			79.6			79.7			79.8			79.9			80.0			80.1			80.2			80.3			80.4			80.5			80.6			80.7			80.8			80.9			81.0			81.1			81.2			81.3			81.4			81.5			81.6			81.7			81.8			81.9			82.0			82.1			82.2			82.3			82.4			82.5			82.6			82.7			82.8			82.9			83.0			83.1			83.2			83.3			83.4			83.5			83.6			83.7			83.8			83.9			84.0			84.1			84.2			84.3			84.4			84.5			84.6			84.7			84.8			84.9			85.0			85.1			85.2			85.3			85.4			85.5			85.6			85.7			85.8			85.9			86.0			86.1			86.2			86.3			86.4			86.5			86.6			86.7			86.8			86.9			87.0			87.1			87.2			87.3			87.4			87.5			87.6			87.7			87.8			87.9			88.0			88.1			88.2			88.3			88.4			88.5			88.6			88.7			88.8			88.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Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
180	7.50	9939	1130.7	49.83	0	1137	50.33	13	1144	51.35	25	1150	52.40
179	7.34	9926	1129.2	50.81	9931	1135.6	51.14	10	1142	52.20	23	1149	53.30
178	7.17	9914	1127.7	51.82	9978	1134.1	52.16	8	1140	53.20	20	1147	54.30
177	7.01	9902	1126.2	52.87	9966	1132.5	53.21	5	1139	54.20	18	1146	55.20
176	6.86	9889	1124.6	53.93	9953	1130.9	54.28	3	1137	55.19	15	1144	56.10
175	6.70	9877	1123.0	55.01	9940	1129.4	55.37	0	1136	56.10	13	1142	57.10
174	6.55	9864	1121.5	56.13	9928	1127.9	56.49	9992	1134.2	56.85	10	1140	58.10
173	6.41	9852	1120.0	57.27	9916	1126.3	57.64	9979	1132.6	58.01	8	1139	59.20
172	6.26	9840	1118.4	58.44	9903	1124.8	58.81	9967	1131.1	59.19	6	1138	60.20
171	6.12	9827	1116.8	59.62	9890	1123.1	60.00	9953	1129.5	60.39	3	1136	61.30
170	5.98	9814	1115.3	60.85	9877	1121.6	61.24	9941	1127.9	61.63	1	1134	62.40
169	5.84	9802	1113.8	62.11	9865	1120.0	62.51	9928	1126.3	62.91	9991	1132.6	63.31
168	5.71	9789	1112.2	63.41	9852	1118.5	63.81	9915	1124.8	64.22	9978	1131.0	64.63
167	5.58	9777	1110.6	64.73	9840	1116.9	65.15	9902	1123.2	65.56	9966	1129.4	65.98
166	5.45	9765	1109.1	66.08	9827	1115.3	66.50	9890	1121.6	66.92	9953	1127.9	67.35
165	5.32	9752	1107.5	67.46	9815	1113.8	67.89	9877	1120.0	68.32	9940	1126.3	68.75
164	5.20	9740	1106.0	68.88	9802	1112.2	69.32	9864	1118.4	69.76	9927	1124.7	70.20
163	5.08	9727	1104.4	70.33	9789	1110.6	70.78	9852	1116.9	71.23	9914	1123.1	71.68
162	4.960	9715	1102.8	71.82	9777	1109.0	72.28	9839	1115.3	72.74	9901	1121.5	73.20
161	4.844	9704	1101.3	73.36	9766	1107.5	73.83	9828	1113.7	74.30	9890	1119.9	74.77
160	4.729	9691	1099.7	74.92	9753	1105.9	75.40	9815	1112.1	75.88	9877	1118.3	76.36
159	4.617	9679	1098.2	76.53	9740	1104.4	77.02	9802	1110.5	77.50	9864	1116.7	77.99
158	4.508	9666	1096.6	78.18	9728	1102.8	78.68	9789	1108.9	79.18	9851	1115.1	79.67
157	4.400	9654	1095.1	79.88	9716	1101.2	80.39	9777	1107.4	80.89	9838	1113.6	81.40
156	4.295	9642	1093.5	81.63	9703	1099.6	82.14	9764	1105.8	82.66	9825	1111.9	83.18
155	4.191	9629	1091.9	83.40	9690	1098.0	83.93	9751	1104.2	84.46	9812	1110.3	84.98
154	4.090	9617	1090.3	85.22	9677	1096.4	85.76	9738	1102.6	86.30	9799	1108.7	86.84
153	3.991	9605	1088.7	87.09	9665	1094.9	87.64	9726	1101.0	88.20	9787	1107.1	88.75
152	3.894	9592	1087.1	89.02	9653	1093.3	89.58	9713	1099.4	90.15	9774	1105.5	90.71
151	3.799	9579	1085.5	90.99	9640	1091.6	91.57	9700	1097.8	92.14	9761	1103.9	92.72
150	3.706	9567	1084.0	93.03	9628	1090.1	93.62	9688	1096.2	94.20	9748	1102.3	94.79
149	3.615	9554	1082.4	95.11	9615	1088.5	95.70	9675	1094.6	96.30	9735	1100.6	96.90
148	3.526	9542	1080.8	97.24	9602	1086.9	97.85	9663	1093.0	98.46	9723	1099.1	99.07
147	3.439	9530	1079.2	99.39	9590	1085.3	100.0	9650	1091.3	100.6	9710	1097.4	101.3
146	3.353	9518	1077.7	101.6	9577	1083.7	102.3	9637	1089.8	102.9	9697	1095.8	103.6
145	3.270	9505	1076.0	104.0	9564	1082.1	104.6	9624	1088.1	105.3	9684	1094.2	105.9
144	3.188	9493	1074.5	106.3	9552	1080.5	107.0	9612	1086.5	107.7	9671	1092.6	108.3
143	3.108	9480	1072.8	108.7	9539	1078.9	109.4	9599	1084.9	110.1	9658	1090.9	110.8
142	3.029	9468	1071.3	111.2	9527	1077.3	111.9	9586	1083.3	112.6	9645	1089.3	113.3
141	2.953	9456	1069.7	113.9	9516	1075.7	114.6	9575	1081.7	115.3	9634	1087.7	116.0
140	2.877	9444	1068.0	116.5	9503	1074.0	117.3	9562	1080.0	118.0	9621	1086.0	118.7
139	2.804	9431	1066.5	119.3	9490	1072.4	120.1	9549	1078.4	120.8	9608	1084.4	121.5
138	2.732	9419	1064.9	122.1	9478	1070.8	122.8	9537	1076.8	123.6	9595	1082.8	124.4
137	2.662	9406	1063.2	124.9	9465	1069.2	125.7	9523	1075.1	126.5	9582	1081.1	127.2
136	2.593	9394	1061.6	127.9	9452	1067.6	128.6	9511	1073.5	129.4	9569	1079.5	130.2
135	2.526	9382	1060.0	130.9	9440	1066.0	131.7	9498	1071.9	132.5	9557	1077.9	133.3

Temperature, Degrees Fahrenheit	Pressure, Pounds per Square Inch.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.333	9113	1031.5	137.1	9170	1037.4	137.9	9228	1043.3	138.8	9286	1049.2	139.7
131	2.272	9101	1029.9	140.3	9159	1035.8	141.2	9216	1041.7	142.1	9274	1047.6	143.0
130	2.212	9089	1028.3	143.7	9147	1034.2	144.6	9204	1040.1	145.5	9262	1046.0	146.4
129	2.153	9077	1026.8	147.3	9135	1032.7	148.3	9192	1038.5	149.2	9250	1044.4	150.1
128	2.096	9065	1025.2	150.8	9123	1031.1	151.8	9180	1036.9	152.8	9237	1042.8	153.7
127	2.040	9053	1023.6	154.5	9111	1029.5	155.5	9168	1035.3	156.5	9225	1041.2	157.5
126	1.985	9041	1022.0	158.4	9099	1027.9	159.4	9156	1033.7	160.4	9213	1039.6	161.4
125	1.932	9030	1020.5	162.4	9086	1026.3	163.4	9143	1032.2	164.4	9200	1038.0	165.4
124	1.880	9018	1018.8	166.4	9074	1024.7	167.4	9131	1030.5	168.5	9188	1036.3	169.5
123	1.829	9006	1017.3	170.5	9062	1023.1	171.5	9119	1029.0	172.6	9176	1034.8	173.7
122	1.779	8994	1015.6	174.7	9050	1021.4	175.8	9107	1027.3	176.9	9163	1033.1	178.0
121	1.730	8983	1014.0	179.2	9040	1019.9	180.3	9096	1025.7	181.5	9152	1031.5	182.6
120	1.683	8971	1012.5	183.7	9027	1018.3	184.9	9084	1024.1	186.0	9140	1029.9	187.2
119	1.636	8959	1010.9	188.4	9015	1016.7	189.6	9071	1022.5	190.8	9127	1028.3	191.9
118	1.591	8948	1009.3	193.3	9004	1015.1	194.5	9060	1020.9	195.7	9116	1026.6	196.9
117	1.547	8936	1007.7	198.2	8991	1013.5	199.4	9047	1019.2	200.7	9103	1025.0	201.9
116	1.504	8923	1006.1	203.3	8979	1011.8	204.5	9035	1017.5	205.8	9090	1023.3	207.1
115	1.462	8912	1004.5	208.5	8968	1010.2	209.8	9023	1015.9	211.1	9079	1021.7	212.4
114	1.421	8900	1002.9	214.0	8955	1008.6	215.3	9011	1014.3	216.6	9066	1020.1	218.0
113	1.381	8888	1001.3	219.5	8943	1007.0	220.9	8998	1012.7	222.3	9054	1018.4	223.6
112	1.342	8876	999.7	225.3	8931	1005.4	226.7	8986	1011.1	228.1	9042	1016.8	229.5
111	1.304	8864	998.1	231.3	8919	1003.8	232.7	8970	1009.5	234.1	9029	1015.2	235.9
110	1.266	8852	996.4	237.3	8907	1002.1	238.8	8962	1007.8	240.3	9017	1013.5	241.7
109	1.230	8840	994.8	243.6	8895	1000.5	245.1	8950	1006.2	246.7	9004	1011.9	248.2
108	1.195	8829	993.2	250.1	8883	998.9	251.7	8938	1004.5	253.2	8992	1010.2	254.8
107	1.160	8816	991.6	256.7	8871	997.3	258.3	8925	1002.9	259.9	8980	1008.6	261.5
106	1.127	8805	989.9	263.6	8859	995.6	265.2	8913	1001.2	266.9	8968	1006.9	268.5
105	1.094	8793	988.3	270.8	8847	993.0	272.5	8901	999.6	274.2	8956	1005.3	275.8
104	1.062	8781	986.7	278.2	8835	992.3	279.9	8889	997.9	281.6	8943	1003.6	283.3
103	1.031	8769	985.1	285.8	8823	990.7	287.5	8877	996.3	289.3	8931	1002.0	291.1
102	1.000	8757	983.4	293.5	8811	989.1	295.3	8865	994.7	297.1	8919	1000.3	298.9
101	0.971	8746	981.8	301.6	8800	987.4	303.4	8854	993.0	305.3	8907	998.6	307.1
100	0.942	8734	980.2	309.8	8787	985.7	311.7	8841	991.3	313.6	8894	996.9	315.5
99	0.914	8722	978.6	318.5	8775	984.1	320.5	8829	989.7	322.4	8882	995.3	324.4
98	0.887	8710	976.9	327.4	8763	982.5	329.4	8817	988.0	331.4	8870	993.6	333.4
97	0.860	8698	975.3	336.5	8751	980.9	338.6	8805	986.4	340.6	8858	992.0	342.7
96	0.834	8687	973.7	346.1	8740	979.3	348.2	8793	984.8	350.3	8846	990.4	352.4
95	0.809	8675	972.1	355.9	8728	977.7	358.0	8781	983.2	360.2	8834	988.8	362.4
94	0.784	8663	970.4	365.9	8716	976.0	368.2	8769	981.5	370.4	8822	987.1	372.6
93	0.761	8651	968.8	376.3	8704	974.4	378.6	8757	979.9	380.9	8809	985.4	383.2
92	0.737	8639	967.2	387.1	8692	972.7	389.5	8744	978.2	391.8	8797	983.7	394.2
91	0.715	8627	965.5	398.3	8680	971.0	400.7	8732	976.5	403.2	8785	982.0	405.6
90	0.693	8615	963.8	409.7	8668	969.3	412.2	8720	974.8	414.7	8772	980.3	417.2
89	0.671	8603	962.2	421.6	8656	967.7	424.1	8708	973.2	426.7	8760	978.6	429.2
88	0.650	8591	960.5	433.7	8643	966.0	436.3	8695	971.5	438.9	8747	976.9	441.6
87	0.630	8580	958.9	446.5	8632	964.4	449.2	8684	969.8	451.9	8736	975.3	454.6

Temperature, Degrees Fahrenheit.	Pressure, Pounds per Square Inch.	1.80			1.81			1.82			1.83		
		Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.	Quality.	Heat Con- tents.	Specific Volume.
132	2.333	9344	1055.2	140.5	9402	1061.1	141.4	9460	1067.0	142.3	9518	1072.9	143.2
131	2.272	9332	1053.5	143.9	9389	1059.4	144.8	9447	1065.4	145.7	9505	1071.3	144.6
130	2.212	9319	1051.9	147.3	9377	1057.8	148.2	9435	1063.7	149.2	9492	1069.6	150.0
129	2.153	9307	1050.3	151.1	9364	1056.2	152.0	9422	1062.1	152.9	9479	1068.0	153.7
128	2.096	9295	1048.7	154.7	9352	1054.6	155.6	9409	1060.4	156.6	9466	1066.3	157.1
127	2.040	9282	1047.1	158.4	9339	1053.0	159.4	9396	1058.8	160.4	9454	1064.7	161.5
126	1.985	9270	1045.4	162.4	9327	1051.3	163.4	9384	1057.1	164.4	9441	1063.0	163.9
125	1.932	9257	1043.8	166.4	9314	1049.7	167.5	9371	1055.5	168.5	9428	1061.4	166.3
124	1.880	9245	1042.2	170.6	9301	1048.0	171.6	9358	1053.8	172.7	9415	1059.7	173.7
123	1.829	9232	1040.6	174.8	9289	1046.4	175.8	9345	1052.2	176.9	9402	1058.1	177.7
122	1.779	9220	1038.9	179.1	9276	1044.7	180.2	9333	1050.5	181.3	9389	1056.3	182.5
121	1.730	9209	1037.3	183.7	9265	1043.1	184.8	9321	1048.9	186.0	9378	1054.7	187.5
120	1.683	9196	1035.7	188.3	9252	1041.5	189.5	9309	1047.2	190.6	9365	1053.0	191.5
119	1.636	9184	1034.1	193.1	9240	1039.9	194.3	9296	1045.6	195.5	9352	1051.4	196.5
118	1.591	9171	1032.4	198.1	9227	1038.2	199.3	9283	1044.0	200.5	9339	1049.7	201.5
117	1.547	9159	1030.8	203.1	9215	1036.5	204.4	9271	1042.3	205.6	9326	1048.0	206.5
116	1.504	9146	1029.1	208.3	9202	1034.8	209.6	9257	1040.6	210.9	9313	1046.3	212.5
115	1.462	9134	1027.5	213.7	9190	1033.2	215.0	9245	1039.0	216.3	9301	1044.7	217.5
114	1.421	9122	1025.8	219.3	9177	1031.5	220.6	9232	1037.3	221.9	9288	1043.0	223.5
113	1.381	9109	1024.2	225.0	9164	1029.9	226.4	9219	1035.6	227.7	9275	1040.4	229.5
112	1.342	9097	1022.5	230.9	9152	1028.2	232.2	9207	1033.9	233.7	9262	1039.7	235.5
111	1.304	9084	1020.9	237.0	9139	1026.6	238.4	9194	1032.3	239.9	9249	1038.0	241.5
110	1.266	9072	1019.2	243.2	9127	1024.9	244.7	9182	1030.6	246.2	9237	1036.3	247.5
109	1.230	9059	1017.6	249.7	9114	1023.3	251.2	9169	1028.9	252.7	9223	1034.7	254.5
108	1.195	9047	1015.9	256.3	9102	1021.6	257.8	9156	1027.2	259.4	9211	1032.9	260.5
107	1.160	9034	1014.3	263.1	9089	1019.9	264.7	9143	1025.6	266.3	9198	1031.2	267.5
106	1.127	9022	1012.6	270.1	9076	1018.2	271.7	9131	1023.9	273.4	9185	1029.5	275.5
105	1.094	9010	1010.9	277.5	9064	1016.5	279.2	9118	1022.2	280.8	9172	1027.8	282.5
104	1.062	8997	1009.2	285.0	9051	1014.8	286.7	9105	1020.5	288.5	9159	1026.1	290.5
103	1.031	8985	1007.6	292.8	9039	1013.2	294.6	9093	1018.8	296.3	9147	1024.5	298.5
102	1.000	8972	1005.9	300.8	9026	1011.5	302.6	9080	1017.1	304.4	9134	1022.8	306.5
101	0.971	8961	1004.2	309.0	9015	1009.8	310.8	9068	1015.4	312.7	9122	1021.1	314.5
100	0.942	8948	1002.5	317.4	9002	1008.1	319.3	9055	1013.7	321.2	9109	1019.3	323.5
99	0.914	8936	1001.9	326.3	8989	1006.5	328.3	9043	1012.0	330.2	9096	1017.6	332.5
98	0.887	8923	999.2	335.4	8977	1004.8	337.4	9030	1010.3	339.4	9083	1015.9	334.5
97	0.860	8911	997.6	344.8	8964	1003.2	346.8	9017	1008.7	348.9	9070	1013.3	350.5
96	0.834	8899	996.0	354.5	8952	1001.5	356.7	9005	1007.1	358.8	9059	1012.6	360.5
95	0.809	8887	994.3	364.5	8940	999.8	366.7	8993	1005.4	368.9	9046	1010.9	371.5
94	0.784	8874	992.6	374.9	8927	998.1	377.1	8980	1003.7	383.3	9033	1009.2	381.5
93	0.761	8862	990.9	385.5	8915	996.4	387.8	8967	1001.9	390.1	9020	1007.5	392.5
92	0.737	8850	989.2	396.5	8902	994.7	398.9	8955	1000.2	401.3	9007	1005.8	403.5
91	0.715	8837	987.5	408.0	8889	993.0	410.4	8942	998.5	412.8	8994	1004.1	415.5
90	0.693	8825	985.8	419.7	8877	991.3	422.2	8929	996.8	424.7	8981	1002.3	427.5
89	0.671	8812	984.1	431.8	8864	989.6	434.3	8916	995.1	436.9	8968	1000.6	439.5
88	0.650	8799	982.4	444.2	8851	987.9	446.8	8903	993.4	449.4	8955	998.8	452.5
87	0.630	8787	980.7	457.3	8839	986.2	460.0	8891	991.7	462.7	8943	997.1	465.5
86	0.610	8775	979.0	470.3	8827	984.5	472.5	8879	990.0	475.3	8930	995.4	478.5

	0	1	2	3	4	5	6	7	8	9
1.0	0.0000	0.00995	0.01980	0.02956	0.03922	0.04879	0.05827	0.06766	0.07696	0.08618
1.1	0.09531	0.1044	0.1133	0.1222	0.1310	0.1398	0.1484	0.1570	0.1655	0.1739
1.2	0.1823	0.1906	0.1988	0.2070	0.2151	0.2231	0.2311	0.2390	0.2469	0.2546
1.3	0.2624	0.2700	0.2776	0.2852	0.2927	0.3001	0.3075	0.3148	0.3221	0.3293
1.4	0.3365	0.3436	0.3507	0.3577	0.3646	0.3716	0.3784	0.3853	0.3920	0.3988
1.5	0.4055	0.4121	0.4187	0.4253	0.4318	0.4382	0.4447	0.4511	0.4574	0.4637
1.6	0.4700	0.4762	0.4824	0.4886	0.4947	0.5008	0.5068	0.5128	0.5188	0.5247
1.7	0.5306	0.5365	0.5423	0.5481	0.5539	0.5596	0.5653	0.5710	0.5766	0.5822
1.8	0.5878	0.5933	0.5988	0.6043	0.6098	0.6152	0.6206	0.6259	0.6313	0.6366
1.9	0.6418	0.6471	0.6523	0.6575	0.6627	0.6678	0.6729	0.6780	0.6831	0.6881
2.0	0.6931	0.6981	0.7031	0.7080	0.7129	0.7178	0.7227	0.7275	0.7324	0.7372
2.1	0.7419	0.7467	0.7514	0.7561	0.7608	0.7655	0.7701	0.7747	0.7793	0.7839
2.2	0.7884	0.7930	0.7975	0.8020	0.8065	0.8109	0.8154	0.8198	0.8242	0.8286
2.3	0.8329	0.8372	0.8416	0.8459	0.8502	0.8544	0.8587	0.8629	0.8671	0.8713
2.4	0.8755	0.8796	0.8838	0.8879	0.8920	0.8961	0.9002	0.9042	0.9083	0.9123
2.5	0.9163	0.9203	0.9243	0.9282	0.9322	0.9361	0.9400	0.9439	0.9478	0.9517
2.6	0.9555	0.9594	0.9632	0.9670	0.9708	0.9746	0.9783	0.9821	0.9858	0.9895
2.7	0.9933	0.9969	1.0006	1.0043	1.0080	1.0116	1.0152	1.0188	1.0225	1.0260
2.8	1.0296	1.0332	1.0367	1.0403	1.0438	1.0473	1.0508	1.0543	1.0578	1.0613
2.9	1.0647	1.0682	1.0716	1.0750	1.0784	1.0818	1.0852	1.0886	1.0919	1.0953
3.0	1.0986	1.1019	1.1053	1.1086	1.1119	1.1151	1.1184	1.1217	1.1249	1.1282
3.1	1.1314	1.1346	1.1378	1.1410	1.1442	1.1474	1.1506	1.1537	1.1569	1.1600
3.2	1.1632	1.1663	1.1694	1.1725	1.1756	1.1787	1.1817	1.1848	1.1878	1.1909
3.3	1.1939	1.1969	1.2000	1.2030	1.2060	1.2090	1.2119	1.2149	1.2179	1.2208
3.4	1.2238	1.2267	1.2296	1.2326	1.2355	1.2384	1.2413	1.2442	1.2470	1.2499
3.5	1.2528	1.2556	1.2585	1.2613	1.2641	1.2669	1.2698	1.2726	1.2754	1.2782
3.6	1.2809	1.2837	1.2865	1.2892	1.2920	1.2947	1.2975	1.3002	1.3029	1.3056
3.7	1.3083	1.3110	1.3137	1.3164	1.3191	1.3218	1.3244	1.3271	1.3297	1.3324
3.8	1.3350	1.3376	1.3403	1.3429	1.3455	1.3481	1.3507	1.3533	1.3558	1.3584
3.9	1.3610	1.3635	1.3661	1.3686	1.3712	1.3737	1.3762	1.3788	1.3813	1.3838
4.0	1.3863	1.3888	1.3913	1.3938	1.3962	1.3987	1.4012	1.4036	1.4061	1.4085
4.1	1.4110	1.4134	1.4159	1.4183	1.4207	1.4231	1.4255	1.4279	1.4303	1.4327
4.2	1.4351	1.4375	1.4398	1.4422	1.4446	1.4469	1.4493	1.4516	1.4540	1.4563
4.3	1.4586	1.4609	1.4633	1.4656	1.4679	1.4702	1.4725	1.4748	1.4770	1.4793
4.4	1.4816	1.4839	1.4861	1.4884	1.4907	1.4929	1.4951	1.4974	1.4996	1.5019
4.5	1.5041	1.5063	1.5085	1.5107	1.5129	1.5151	1.5173	1.5195	1.5217	1.5239
4.6	1.5261	1.5282	1.5304	1.5326	1.5347	1.5369	1.5390	1.5412	1.5433	1.5454
4.7	1.5476	1.5497	1.5518	1.5539	1.5560	1.5581	1.5602	1.5623	1.5644	1.5665
4.8	1.5686	1.5707	1.5728	1.5748	1.5769	1.5790	1.5810	1.5831	1.5851	1.5872
4.9	1.5892	1.5913	1.5933	1.5953	1.5974	1.5994	1.6014	1.6034	1.6054	1.6074
5.0	1.6094	1.6114	1.6134	1.6154	1.6174	1.6194	1.6214	1.6233	1.6253	1.6273
5.1	1.6292	1.6312	1.6332	1.6351	1.6371	1.6390	1.6409	1.6429	1.6448	1.6467
5.2	1.6487	1.6506	1.6525	1.6544	1.6563	1.6582	1.6601	1.6620	1.6639	1.6658
5.3	1.6677	1.6696	1.6715	1.6734	1.6752	1.6771	1.6790	1.6808	1.6827	1.6845
5.4	1.6864	1.6882	1.6901	1.6919	1.6938	1.6956	1.6974	1.6993	1.7011	1.7029
5.5	1.7047	1.7066	1.7084	1.7102	1.7120	1.7138	1.7156	1.7174	1.7192	1.7210
5.6	1.7228	1.7246	1.7263	1.7281	1.7299	1.7317	1.7334	1.7352	1.7370	1.7387

NAPERIAN LOGARITHMS.

0	1	2	3	4	5	6	7	8	9
1.7405	1.7422	1.7440	1.7457	1.7475	1.7492	1.7509	1.7527	1.7544	1.7561
1.7579	1.7596	1.7613	1.7630	1.7647	1.7664	1.7681	1.7699	1.7716	1.7733
1.7750	1.7766	1.7783	1.7800	1.7817	1.7834	1.7851	1.7867	1.7884	1.7901
1.7918	1.7934	1.7951	1.7967	1.7984	1.8001	1.8017	1.8034	1.8050	1.8066
1.8083	1.8099	1.8116	1.8132	1.8148	1.8165	1.8181	1.8197	1.8213	1.8229
1.8245	1.8262	1.8278	1.8294	1.8310	1.8326	1.8342	1.8358	1.8374	1.8390
1.8405	1.8421	1.8437	1.8453	1.8469	1.8485	1.8500	1.8516	1.8532	1.8547
1.8563	1.8579	1.8594	1.8610	1.8625	1.8641	1.8656	1.8672	1.8687	1.8703
1.8718	1.8733	1.8749	1.8764	1.8779	1.8795	1.8810	1.8825	1.8840	1.8856
1.8871	1.8886	1.8901	1.8916	1.8931	1.8946	1.8961	1.8976	1.8991	1.9006
1.9021	1.9036	1.9051	1.9066	1.9081	1.9095	1.9110	1.9125	1.9140	1.9155
1.9169	1.9184	1.9199	1.9213	1.9228	1.9242	1.9257	1.9272	1.9286	1.9301
1.9315	1.9330	1.9344	1.9359	1.9373	1.9387	1.9402	1.9416	1.9430	1.9445
1.9459	1.9473	1.9488	1.9502	1.9516	1.9530	1.9544	1.9559	1.9573	1.9587
1.9601	1.9615	1.9629	1.9643	1.9657	1.9671	1.9685	1.9699	1.9713	1.9727
1.9741	1.9755	1.9769	1.9782	1.9796	1.9810	1.9824	1.9838	1.9851	1.9865
1.9879	1.9892	1.9906	1.9920	1.9933	1.9947	1.9961	1.9974	1.9988	2.0001
2.0015	2.0028	2.0042	2.0055	2.0069	2.0082	2.0096	2.0109	2.0122	2.0136
2.0149	2.0162	2.0176	2.0189	2.0202	2.0215	2.0229	2.0242	2.0255	2.0268
2.0281	2.0295	2.0308	2.0321	2.0334	2.0347	2.0360	2.0373	2.0386	2.0399
2.0412	2.0425	2.0438	2.0451	2.0464	2.0477	2.0490	2.0503	2.0516	2.0528
2.0541	2.0554	2.0567	2.0580	2.0592	2.0605	2.0618	2.0631	2.0643	2.0656
2.0668	2.0681	2.0694	2.0707	2.0719	2.0732	2.0744	2.0757	2.0769	2.0782
2.0794	2.0807	2.0819	2.0832	2.0844	2.0857	2.0869	2.0881	2.0894	2.0906
2.0919	2.0931	2.0943	2.0956	2.0968	2.0980	2.0992	2.1005	2.1017	2.1029
2.1041	2.1054	2.1066	2.1078	2.1090	2.1102	2.1114	2.1126	2.1138	2.1150
2.1163	2.1175	2.1187	2.1199	2.1211	2.1223	2.1235	2.1247	2.1258	2.1270
2.1282	2.1294	2.1306	2.1318	2.1330	2.1342	2.1353	2.1365	2.1377	2.1389
2.1401	2.1412	2.1424	2.1436	2.1448	2.1459	2.1471	2.1483	2.1494	2.1506
2.1518	2.1529	2.1541	2.1552	2.1564	2.1576	2.1587	2.1599	2.1610	2.1622
2.1633	2.1645	2.1656	2.1668	2.1679	2.1691	2.1702	2.1713	2.1725	2.1736
2.1748	2.1759	2.1770	2.1782	2.1793	2.1804	2.1815	2.1827	2.1838	2.1849
2.1861	2.1872	2.1883	2.1894	2.1905	2.1917	2.1928	2.1939	2.1950	2.1961
2.1972	2.1983	2.1994	2.2006	2.2017	2.2028	2.2039	2.2050	2.2061	2.2072
2.2083	2.2094	2.2105	2.2116	2.2127	2.2138	2.2148	2.2159	2.2170	2.2181
2.2192	2.2203	2.2214	2.2225	2.2235	2.2246	2.2257	2.2268	2.2279	2.2289
2.2300	2.2311	2.2322	2.2332	2.2343	2.2354	2.2364	2.2375	2.2386	2.2396
2.2407	2.2418	2.2428	2.2439	2.2450	2.2460	2.2471	2.2481	2.2492	2.2502
2.2513	2.2523	2.2534	2.2544	2.2555	2.2565	2.2576	2.2586	2.2597	2.2607
2.2618	2.2628	2.2638	2.2649	2.2659	2.2670	2.2680	2.2690	2.2701	2.2711
2.2721	2.2732	2.2742	2.2752	2.2762	2.2773	2.2783	2.2793	2.2803	2.2814
2.2824	2.2834	2.2844	2.2854	2.2865	2.2875	2.2885	2.2895	2.2905	2.2915
2.2925	2.2935	2.2946	2.2956	2.2966	2.2976	2.2986	2.2996	2.3006	2.3016
2.3026									

Nat. Nos.	0	1	2	3	4	5	6	7	8	9	Proportional Parts.								
											1	2	3	4	5	6	7	8	9
10	0000	0043	0086	0128	0170	0212	0253	0294	0334	0374	4	8	12	17	21	25	29	33	37
11	0414	0453	0492	0531	0569	0607	0645	0682	0719	0755	4	8	11	15	19	23	26	30	34
12	0792	0828	0864	0899	0934	0969	1004	1038	1072	1106	3	7	10	14	17	21	24	28	31
13	1139	1173	1206	1239	1271	1303	1335	1367	1399	1430	3	6	10	13	16	19	23	26	29
14	1461	1492	1523	1553	1584	1614	1644	1673	1703	1732	3	6	9	12	15	18	21	24	27
15	1761	1790	1818	1847	1875	1903	1931	1959	1987	2014	3	6	8	11	14	17	20	22	25
16	2041	2068	2095	2122	2148	2175	2201	2227	2253	2279	3	5	8	11	13	16	18	21	24
17	2304	2330	2355	2380	2405	2430	2455	2480	2504	2529	2	5	7	10	12	15	17	20	22
18	2553	2577	2601	2625	2648	2672	2695	2718	2742	2765	2	5	7	9	12	14	16	19	21
19	2788	2810	2833	2856	2878	2900	2923	2945	2967	2989	2	4	7	9	11	13	16	18	20
20	3010	3032	3054	3075	3096	3118	3139	3160	3181	3201	2	4	6	8	11	13	15	17	19
21	3222	3243	3263	3284	3304	3324	3345	3365	3385	3404	2	4	6	8	10	12	14	16	18
22	3424	3444	3464	3483	3502	3522	3541	3560	3579	3598	2	4	6	8	10	12	14	15	17
23	3617	3636	3655	3674	3692	3711	3729	3747	3766	3784	2	4	6	7	9	11	13	15	17
24	3802	3820	3838	3856	3874	3892	3909	3927	3945	3962	2	4	5	7	9	11	12	14	16
25	3979	3997	4014	4031	4048	4065	4082	4099	4116	4133	2	3	5	7	9	10	12	14	15
26	4150	4166	4183	4200	4216	4232	4249	4265	4281	4298	2	3	5	7	8	10	11	13	15
27	4314	4330	4346	4362	4378	4393	4409	4425	4440	4456	2	3	5	6	8	9	11	13	14
28	4472	4487	4502	4518	4533	4548	4564	4579	4594	4609	2	3	5	6	8	9	11	12	14
29	4624	4639	4654	4669	4683	4698	4713	4728	4742	4757	1	3	4	6	7	9	10	12	13
30	4771	4786	4800	4814	4829	4843	4857	4871	4886	4900	1	3	4	6	7	9	10	11	13
31	4914	4928	4942	4955	4969	4983	4997	5011	5024	5038	1	3	4	6	7	8	10	11	12
32	5051	5065	5079	5092	5105	5119	5132	5145	5159	5172	1	3	4	5	7	8	9	11	12
33	5185	5198	5211	5224	5237	5250	5263	5276	5289	5302	1	3	4	5	6	8	9	10	12
34	5315	5328	5340	5353	5366	5378	5391	5403	5416	5428	1	3	4	5	6	8	9	10	11
35	5441	5453	5465	5478	5490	5502	5514	5527	5539	5551	1	2	4	5	6	7	9	10	11
36	5563	5575	5587	5599	5611	5623	5635	5647	5658	5670	1	2	4	5	6	7	8	10	11
37	5682	5694	5705	5717	5729	5740	5752	5763	5775	5786	1	2	3	5	6	7	8	9	10
38	5798	5809	5821	5832	5843	5855	5866	5877	5888	5899	1	2	3	5	6	7	8	9	10
39	5911	5922	5933	5944	5955	5966	5977	5988	5999	6010	1	2	3	4	5	7	8	9	10
40	6021	6031	6042	6053	6064	6075	6085	6096	6107	6117	1	2	3	4	5	6	8	9	10
41	6128	6138	6149	6160	6170	6180	6191	6201	6212	6222	1	2	3	4	5	6	7	8	9
42	6232	6243	6253	6263	6274	6284	6294	6304	6314	6325	1	2	3	4	5	6	7	8	9
43	6335	6345	6355	6365	6375	6385	6395	6405	6415	6425	1	2	3	4	5	6	7	8	9
44	6435	6444	6454	6464	6474	6484	6493	6503	6513	6522	1	2	3	4	5	6	7	8	9
45	6532	6542	6551	6561	6571	6580	6590	6599	6609	6618	1	2	3	4	5	6	7	8	9
46	6628	6637	6646	6656	6665	6675	6684	6693	6702	6712	1	2	3	4	5	6	7	7	8
47	6721	6730	6739	6749	6758	6767	6776	6785	6794	6803	1	2	3	4	5	5	6	7	8
48	6812	6821	6830	6839	6848	6857	6866	6875	6884	6893	1	2	3	4	4	5	6	7	8
49	6902	6911	6920	6928	6937	6946	6955	6964	6972	6981	1	2	3	4	4	5	6	7	8
50	6990	6998	7007	7016	7024	7033	7042	7050	7059	7067	1	2	3	3	4	5	6	7	8
51	7076	7084	7093	7101	7110	7118	7126	7135	7143	7152	1	2	3	3	4	5	6	7	8
52	7160	7168	7177	7185	7193	7202	7210	7218	7226	7235	1	2	2	3	4	5	6	7	7
53	7243	7251	7259	7267	7275	7284	7292	7300	7308	7316	1	2	2	3	4	5	6	6	7
54	7324	7332	7340	7348	7356	7364	7372	7380	7388	7396	1	2	2	3	4	5	6	6	7

LOGARITHMS.

Nat. Nos.	0	1	2	3	4	5	6	7	8	9	Proportional Parts.								
											1	2	3	4	5	6	7	8	9
55	7404	7412	7419	7427	7435	7443	7451	7459	7466	7474	1	2	2	3	4	5	5	6	7
56	7482	7490	7497	7505	7513	7520	7528	7536	7543	7551	1	2	2	3	4	5	5	6	7
57	7559	7566	7574	7582	7589	7597	7604	7612	7619	7627	1	2	2	3	4	5	5	6	7
58	7634	7642	7649	7657	7664	7672	7679	7686	7694	7701	1	1	2	3	4	4	5	6	7
59	7709	7716	7723	7731	7738	7745	7752	7760	7767	7774	1	1	2	3	4	4	5	6	7
60	7782	7789	7796	7803	7810	7818	7825	7832	7839	7846	1	1	2	3	4	4	5	6	6
61	7853	7860	7868	7875	7882	7889	7896	7903	7910	7917	1	1	2	3	4	4	5	6	6
62	7924	7931	7938	7945	7952	7959	7966	7973	7980	7987	1	1	2	3	3	4	5	6	6
63	7993	8000	8007	8014	8021	8028	8035	8041	8048	8055	1	1	2	3	3	4	5	5	6
64	8062	8069	8075	8082	8089	8096	8102	8109	8116	8122	1	1	2	3	3	4	5	5	6
65	8129	8136	8142	8149	8156	8162	8169	8176	8182	8189	1	1	2	3	3	4	5	5	6
66	8195	8202	8209	8215	8222	8228	8235	8241	8248	8254	1	1	2	3	3	4	5	5	6
67	8261	8267	8274	8280	8287	8293	8299	8306	8312	8319	1	1	2	3	3	4	5	5	6
68	8325	8331	8338	8344	8351	8357	8363	8370	8376	8382	1	1	2	3	3	4	4	5	6
69	8388	8395	8401	8407	8414	8420	8426	8432	8439	8445	1	1	2	2	3	4	4	5	6
70	8451	8457	8463	8470	8476	8482	8488	8494	8500	8506	1	1	2	2	3	4	4	5	6
71	8513	8519	8525	8531	8537	8543	8549	8555	8561	8567	1	1	2	2	3	4	4	5	5
72	8573	8579	8585	8591	8597	8603	8609	8615	8621	8627	1	1	2	2	3	4	4	5	5
73	8633	8639	8645	8651	8657	8663	8669	8675	8681	8686	1	1	2	2	3	4	4	5	5
74	8692	8698	8704	8710	8716	8722	8727	8733	8739	8745	1	1	2	2	3	4	4	5	5
75	8751	8756	8762	8768	8774	8779	8785	8791	8797	8802	1	1	2	2	3	3	4	5	5
76	8808	8814	8820	8825	8831	8837	8842	8848	8854	8859	1	1	2	2	3	3	4	5	5
77	8865	8871	8876	8882	8887	8893	8899	8904	8910	8915	1	1	2	2	3	3	4	4	5
78	8921	8927	8932	8938	8943	8949	8954	8960	8965	8971	1	1	2	2	3	3	4	4	5
79	8976	8982	8987	8993	8998	9004	9009	9015	9020	9025	1	1	2	2	3	3	4	4	5
80	9031	9036	9042	9047	9053	9058	9063	9069	9074	9079	1	1	2	2	3	3	4	4	5
81	9085	9090	9096	9101	9106	9112	9117	9122	9128	9133	1	1	2	2	3	3	4	4	5
82	9138	9143	9149	9154	9159	9165	9170	9175	9180	9186	1	1	2	2	3	3	4	4	5
83	9191	9196	9201	9206	9212	9217	9222	9227	9232	9238	1	1	2	2	3	3	4	4	5
84	9243	9248	9253	9258	9263	9269	9274	9279	9284	9289	1	1	2	2	3	3	4	4	5
85	9294	9299	9304	9309	9315	9320	9325	9330	9335	9340	1	1	2	2	3	3	4	4	5
86	9345	9350	9355	9360	9365	9370	9375	9380	9385	9390	1	1	2	2	3	3	4	4	5
87	9395	9400	9405	9410	9415	9420	9425	9430	9435	9440	0	1	1	2	2	3	3	4	4
88	9445	9450	9455	9460	9465	9469	9474	9479	9484	9489	0	1	1	2	2	3	3	4	4
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